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# Ontario Road Safety Annual Report

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1998



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# Ontario Road Safety Annual Report



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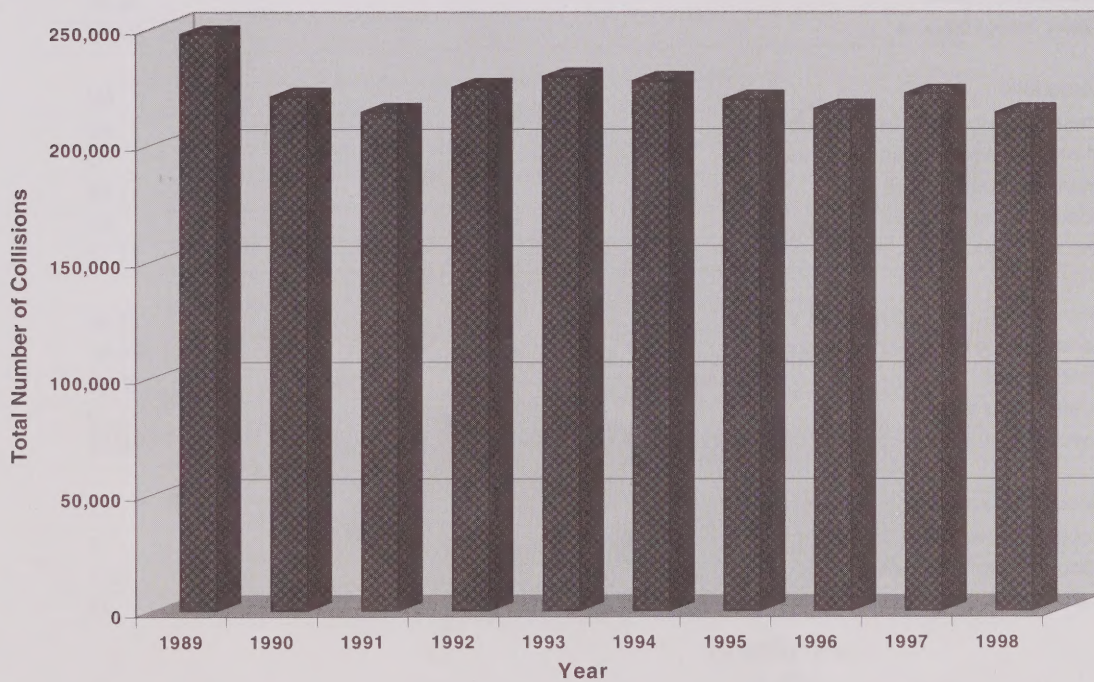
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## 1 Overview

### Total Number of Collisions in Ontario - 1989 to 1998



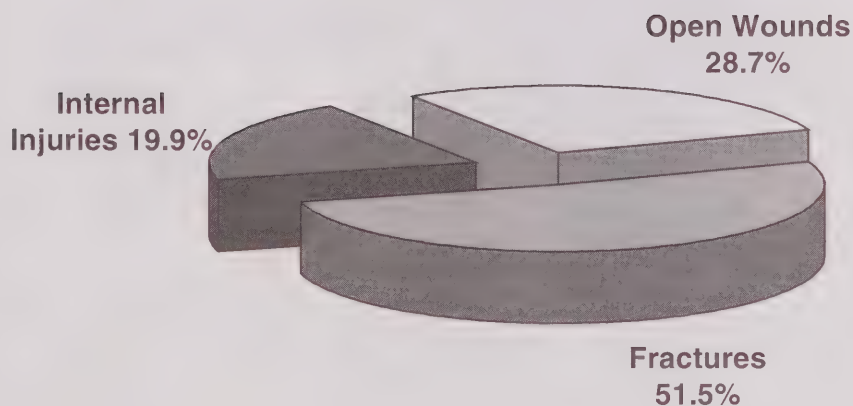
**1a. Synopsis****Selected Statistics**

Total Reportable Collisions	213,356
Total Drivers Involved in Collisions	386,818
Total Vehicles Involved in Collisions	401,546
Fatal Collisions	768
Personal Injury Collisions	55,441
Property Damage Collisions	157,147
Persons Killed	854
Drivers Killed (excludes All Terrain Vehicle Drivers)	507
Drivers Killed (Impaired or Had Been Drinking)	112
Passengers Killed	225
Pedestrians Killed	121
Other Road Users Killed	2
Persons Injured	83,192
Estimated Ontario Population (1998)	11,675,497
Licensed Drivers	7,727,756
Registered Motor Vehicles	6,812,770
Estimated Vehicle Kilometres Travelled (in millions)	84,478
Number of Persons Killed in Motor Vehicle Collisions per 100,000 People in Ontario	7.3
Number of Persons Killed in Motor Vehicle Collisions per 100 Million Kilometres Travelled	1.0
Collision Rate per 100 Million Kilometres Travelled	252.6
Fatal Collision Rate per 100 Million Kilometres Travelled	0.9

## 1b. Selected Characteristics of Motor Vehicle Collisions

On January 1, 1988 a new Motor Vehicle Accident Report (MVAR) form was introduced. The data includes the changes which were made to the form used by the police forces in Ontario, which forms the basis for the collision statistics compiled by the province of Ontario. This has resulted in changes in the ways in which the data are compiled. As a result, some of the information may not be directly comparable to data from years prior to 1988.

### Per Cent of Hospital Admissions by Injury Type - 1998





## 1c. The Health Perspective

### Selected Diagnoses of Motor Vehicle Collision Injuries Hospitalized in Ontario, 1997/98

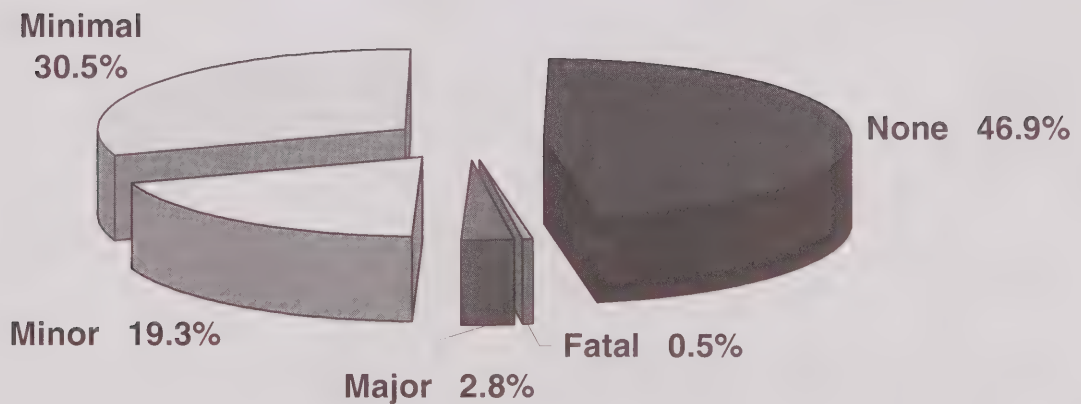
Selected Diagnoses	Hospital	Hospital
	Admissions	Days of Stay
Fracture of skull	497	4,994
Fracture of neck and trunk	1,307	13,187
Fracture of upper limb	574	2,732
Fracture of lower limb	1,506	14,461
Dislocation, sprains and strains	265	995
Intracranial injury, excluding those with skull fracture	965	8,899
Internal injury of chest, abdomen and pelvis	639	6,231
Open wound of head, neck and trunk	192	445
Open wound of upper limb	45	202
Open wound of lower limb	58	517
Other injuries, burns and traumatic complications	2,013	36,896
<b>Total Admissions and Days</b>	<b>8,061</b>	<b>89,559</b>

### Selected Surgical Procedures for Motor Vehicle Collision Injuries Hospitalized in Ontario, 1998

Selected Procedure	Hospital	Hospital
	Admissions	Days of Stay
Operations on skull, brain and cerebral meninges	148	3,407
Operations on spinal cord and canal structures	54	1,099
Operations on nose, mouth and pharynx	40	204
Operations on chest wall, pleura, mediastinum and diaphragm	150	1,635
Operations on bone marrow and spleen	83	1,313
Operations on kidney	20	215
Operation on facial bones and joints	137	964
Reduction of fracture and dislocation	1,832	18,468
Repair and plastic operations on joint structures	149	2,465
Operations on skin and subcutaneous tissue	416	2,909
Other surgical procedure	619	10,683
<b>Sub-total of surgical admission and days</b>	<b>3,648</b>	<b>43,362</b>
<b>No surgical procedures reported</b>	<b>4,413</b>	<b>46,197</b>
<b>Total Admissions and Days</b>	<b>8,061</b>	<b>89,559</b>

## 2 The People

### Per Cent of Involved Persons in Collisions by Severity of Injury - 1998



## 2a. People in Collisions

**Table 2.1** Category of Involved Person by Severity of Injury  
in Fatal and Personal Injury Collisions \*\* 1998

Category of Involved Person	Severity of Injury					Total
	None	Minimal	Minor	Major	Fatal	
Driver	47,119	28,486	16,504	2,098	437	94,644
Passenger*	25,996	15,633	9,473	1,257	222	52,581
Pedestrian	109	1,985	2,402	591	121	5,208
Cyclist	39	1,601	1,230	163	36	3,069
Cyclist Passenger	12	63	59	6	0	140
All Terrain Vehicle Driver	11	3	16	6	1	37
All Terrain Vehicle Passenger	2	1	3	7	0	13
Snow Vehicle Driver	2	5	13	7	1	28
Snow Vehicle Passenger	2	5	4	1	0	12
Motorcycle Driver	51	321	553	194	32	1,151
Motorcycle Passenger	23	75	138	50	3	289
Moped Driver	5	6	6	1	1	19
Moped Passenger	2	0	1	1	0	4
Hanger On	26	33	34	10	0	103
Other	713	67	69	11	0	860
<b>Total</b>	<b>74,112</b>	<b>48,284</b>	<b>30,505</b>	<b>4,403</b>	<b>854</b>	<b>158,158</b>

\* Includes bus passengers

\*\*HTA (Highway Traffic Act) reportable. For more information on special vehicles, see Chapter 6.

Due to a change in the method of tabulating collision statistics this table excludes individuals involved in property damage only collisions.

**Fatal** Person killed immediately or within 30 days of the motor vehicle collision.

**Major** Person admitted to hospital. Includes person admitted for observation.

**Minor** Person went to hospital and was treated in the emergency room but was not admitted.

**Minimal** Person did not go to hospital when leaving the scene of the collision. Includes minor abrasions, bruises and complaint of pain.

**None** Uninjured person.



Table 2.2  
Category of Person Killed by Age Groups 1998

Category of Person	Age Groups															Total		
	0-4	5-9	10-15	16	17	18	19	20	21-24	25-34	35-44	45-54	55-64	65-74	75+	UK		
Driver	0	0	2	0	8	4	11	21	39	84	74	69	44	44	37	0	437	
Passenger*	8	8	16	6	8	6	6	16	22	34	23	18	14	17	18	2	222	
Pedestrian	3	4	4	2	2	3	2	1	4	9	17	8	19	18	25	0	121	
Bicyclist	0	3	7	1	0	1	0	0	2	9	7	0	1	3	1	1	36	
Bicycle Passenger	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
All Terrain Vehicle Driver	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	
All Terrain Vehicle Passenger	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Snow Vehicle Driver	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
Snow Vehicle Passenger	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Motorcycle Driver	0	0	0	0	0	0	1	0	5	16	5	3	1	1	0	0	32	
Motorcycle Passenger	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	3	
Moped Driver	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
Moped Passenger	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Total</b>	<b>11</b>	<b>15</b>	<b>29</b>	<b>9</b>	<b>19</b>	<b>14</b>	<b>20</b>	<b>38</b>	<b>73</b>	<b>152</b>	<b>128</b>	<b>99</b>	<b>79</b>	<b>84</b>	<b>81</b>	<b>3</b>	<b>854</b>	

\* Includes hangers on

UK = Unknown

HTA (Highway Traffic Act) reportable collisions. For more information on special vehicles, see Chapter 6.

Table 2.3 Category of Persons Injured by Age Groups 1998

Category of Person		Age Groups															Total	
		0-4	5-9	10-15	16	17	18	19	20	21-24	25-34	35-44	45-54	55-64	65-74	75+		
Driver		7	4	52	220	926	1,176	1,196	1,234	4,495	11,639	11,211	7,451	3,822	2,277	1,283	95	47,088
Passenger*		1,092	1,844	2,386	796	894	968	964	778	2,457	4,212	3,240	2,280	1,605	1,317	833	756	26,422
Pedestrian		132	389	744	144	113	96	91	92	311	692	636	495	333	284	289	137	4,978
Bicyclist		17	212	686	92	100	79	69	69	254	477	357	179	95	60	34	214	2,994
Bicycle Passenger		3	7	34	7	4	0	1	5	13	28	16	7	4	3	1	3	136
All Terrain Vehicle Driver		0	0	8	3	2	0	1	2	5	3	1	0	0	0	0	0	25
All Terrain Vehicle Passenger		0	1	6	0	1	1	0	1	0	1	0	0	0	0	0	0	11
Snow Vehicle Driver		0	1	2	5	2	1	0	1	2	8	1	1	1	0	0	0	25
Snow Vehicle Passenger		0	1	2	1	2	1	1	0	0	1	0	1	0	0	0	0	10
Motorcycle Driver		0	0	10	24	26	31	35	23	153	323	236	161	34	9	1	2	1,068
Motorcycle Passenger		0	6	11	10	11	11	10	4	35	68	54	36	7	1	0	5	269
Moped Driver		0	0	0	0	0	0	0	0	1	6	2	0	3	1	0	0	13
Moped Passenger		0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	2
Other		0	6	5	1	5	3	2	3	8	22	23	18	14	8	6	27	151
Total		1,251	2,471	3,947	1,303	2,086	2,367	2,370	2,212	7,734	17,481	15,777	10,629	5,918	3,960	2,447	1,239	83,192

\* Includes hangers on

HTA (Highway Traffic Act) reportable collisions. For more information on special vehicles, see Chapter 6.

**Table 2.4 Sex of Driver by  
Class of Collision 1998**

Sex of Driver	Class of Collision			Total
	Personal		Property	
	Fatal	Injury	Damage	
Male	974	68,173	192,404	<b>261,551</b>
Female	305	36,456	85,280	<b>122,041</b>
Unknown*	4	508	2,714	<b>3,226</b>
<b>Total</b>	<b>1,283</b>	<b>105,137</b>	<b>280,398</b>	<b>386,818</b>

**Fatal Collision** A motor vehicle collision in which at least one person sustains bodily injuries resulting in death. Prior to January 1, 1982, fatal collision statistics included deaths attributed to accidental injuries up to one year after the collision. Since that date, only deaths from injuries within thirty days of the collision have been included.

**Personal Injury Collision** A motor vehicle collision in which at least one person involved sustains bodily injuries not resulting in death.

**Property Damage Collision** A motor vehicle collision in which no person sustains bodily injury, but in which there is damage to any public property or damage to private property including damage to the motor vehicle or its load.

The minimum reportable level for property damage only collision rose from \$200 to \$400 on January 1, 1978 and rose again to \$700 on January 1, 1985. As of January 1, 1998 the minimum reportable level for property damage only collisions is \$1,000.

On January 1, 1997 Collision Self-Reporting for property damage only collisions was introduced. See Appendix for more explanation about Collision Self-Reporting.

**Table 2.5 Driver Condition by  
Class of Collision 1998**

Condition of Driver	Class of Collision			Total
	Personal		Property	
	Fatal	Injury	Damage	
Normal	809	85,343	224,381	<b>310,533</b>
Had Been Drinking	59	1,797	2,794	<b>4,650</b>
Ability Impaired -				
Alcohol over .08	112	1,020	1,708	<b>2,840</b>
Ability Impaired Alcohol	11	544	666	<b>1,221</b>
Ability Impaired Drugs	25	69	92	<b>186</b>
Fatigue	21	637	941	<b>1,599</b>
Medical/Physical Disability	16	523	441	<b>980</b>
Inattentive	61	6,803	12,105	<b>18,969</b>
Other	5	288	575	<b>868</b>
Unknown*	164	8,113	36,695	<b>44,972</b>
<b>Total</b>	<b>1,283</b>	<b>105,137</b>	<b>280,398</b>	<b>386,818</b>

**Had Been Drinking** Driver had consumed alcohol but his/her physical condition was not legally impaired.

**Ability Impaired Alcohol over .08** Driver had consumed alcohol and upon testing was found to have a blood alcohol level in excess of .08 grams of alcohol per 100 millilitres of blood.

**Ability Impaired Alcohol** Driver had consumed sufficient alcohol to warrant being charged with a drinking and driving offence.

**Inattentive** Driver was operating a motor vehicle without due care and attention or placing less than full concentration on driving, e.g., changing radio stations, consuming food, reading, talking on phone or two-way radio, using headphones.

\* This includes situations where the enforcement officer is unable to make a determination e.g. hit and run.



**Table 2.6 Driver Age by Driver Condition In all Collisions 1998\***

Driver Age	Driver Condition						Total
		Had Been	Impaired Alcohol	Ability Impaired			
	Normal	Drinking	over .08	Alcohol	Other	Unknown	
Under 16	1,040	20	8	3	239	130	1,440
16	1,477	29	6	5	196	134	1,847
17	6,607	66	26	10	748	436	7,893
18	7,542	140	47	26	814	570	9,139
19	7,446	194	68	29	728	614	9,079
20	7,144	208	106	26	683	640	8,807
21-24	28,984	748	336	141	2,326	2,324	34,859
25-34	76,384	1,278	786	371	4,883	6,234	89,936
35-44	74,255	1,015	797	325	4,346	5,935	86,673
45-54	50,614	508	396	167	2,975	3,636	58,296
55-64	25,788	199	160	64	1,761	1,850	29,822
65-74	14,715	104	78	25	1,403	1,127	17,452
75 & over	7,575	37	14	6	1,152	624	9,408
Unknown	962	104	12	23	348	20,718	22,167
<b>Total</b>	<b>310,533</b>	<b>4,650</b>	<b>2,840</b>	<b>1,221</b>	<b>22,602</b>	<b>44,972</b>	<b>386,818</b>

\* Includes bicyclists, drivers of all-terrain vehicles, etc.

**Table 2.7 Recorded Occurrence of Driver Condition In Drivers Killed 1998\***

Recorded Occurrence	Number of	
	Drivers	%
Normal	224	44.1
Had Been Drinking	24	4.7
Ability Impaired -		
Alcohol over .08	83	16.3
Ability Impaired Alcohol	5	1.0
Ability Impaired Drugs	25	4.9
Fatigue	7	1.4
Medical/Physical Disability	12	2.4
Inattentive	17	3.3
Other	4	0.8
Unknown	107	21.1
<b>Total</b>	<b>508</b>	<b>100.0</b>

\* In previous years Table 2.7 only included fatally injured drivers who were either normal or had been drinking. In order to better examine the other pre-crash factors related to deaths of all drivers this table has now been expanded to include the driver conditions of fatally injured drivers. These data can be recombined into the older format by recalculating the percentages based on only the alcohol and normal driver's data.

\* Total includes Snow Vehicle Drivers killed in HTA reportable collisions

**Table 2.8** Apparent Driver Action by  
Class of Collision 1998

Apparent Driver Action	Class of Collision			Total
	Fatal	Personal Injury	Property Damage	
Driving Properly	541	50,504	135,748	186,793
Following Too Close	5	10,560	21,235	31,800
Speed Too Fast	70	1,216	1,594	2,880
Speed Too Fast for Conditions	62	3,953	10,656	14,671
Speed Too Slow	3	56	171	230
Improper Turn	29	3,829	10,630	14,488
Disobey Traffic Control	71	4,769	5,992	10,832
Fail to Yield				
Right of Way	86	10,856	23,687	34,629
Improper Passing	24	724	2,410	3,158
Lost Control	173	7,161	16,513	23,847
Wrong Way on				
One Way Road	4	118	154	276
Improper Lane Change	11	1,677	7,691	9,379
Other*	141	6,794	17,446	24,381
Unknown	63	2,920	26,471	29,454
<b>Total</b>	<b>1,283</b>	<b>105,137</b>	<b>280,398</b>	<b>386,818</b>

\* Includes actions defined as careless driving, inattentive driving, fell asleep, hit and run, driving on wrong side of road, improper parking, impaired driving, illegally parked, dangerous driving, inexperience, etc.

**Table 2.9** Seat Belt Usage by Severity of Driver Injury in Fatal and Personal Injury Collisions 1998

Safety Equipment Used	Severity of Injury					Total
	Killed	Major	Minor	Minimal	Not Injured	
Seat Belt Used	253	1,521	14,108	25,863	41,948	83,693
Other Equipment*	7	52	456	503	232	1,250
Equipment Not used	117	286	650	322	279	1,654
No Safety Equipment	0	6	38	41	51	136
Use Unknown	60	233	1,252	1,757	4,609	7,911
<b>Total</b>	<b>437</b>	<b>2,098</b>	<b>16,504</b>	<b>28,486</b>	<b>47,119</b>	<b>94,644</b>

\* Other equipment includes construction and motorcycle helmets, etc., used in a motor vehicle. It also includes the use of airbags. Seat belt usage in conjunction with airbag deployment is unknown.

The tables on this page include only seat belt usage in collisions in which there were personal injuries or fatalities. Property damage only collisions are excluded. ORSARs published prior to 1988, included seat belt usage in all collisions.

**Table 2.10**      **Seat Belt Usage by Severity of Passenger Injury in Fatal and Personal Injury Collisions 1998**

Safety Equipment Used	Severity of Injury					Total
	Killed	Major	Minor	Minimal	Not Injured	
Seat Belt Used	126	820	7,507	13,683	21,624	43,760
Child Safety Seat Used Incorrectly	0	3	18	28	75	124
Child Safety Seat Used Correctly	2	13	144	349	1,577	2,085
Other Equipment*	1	25	122	118	70	336
Equipment Not used	59	229	700	398	304	1,690
No Safety Equipment	7	44	339	414	575	1,379
Use Unknown	27	129	619	625	1,734	3,134
<b>Total</b>	<b>222</b>	<b>1,263</b>	<b>9,449</b>	<b>15,615</b>	<b>25,959</b>	<b>52,508</b>

\* Other equipment includes construction and motorcycle helmets, etc., used in a motor vehicle. It also includes the use of airbags. Seat belt usage in conjunction with airbag deployment is unknown.

**Table 2.11**      **Restraint Use for Children (0 - 4 Years) Killed in Collisions 1994-1998**

Year Used	Child Restraint Used Correctly	Child Restraint Used Incorrectly	Lap/Lap & Shoulder Belt	Restraint Not Available	Available Not Used	Use Unknown	Total
1994	5	0	4	1	2	1	13
1995	5	2	10	1	2	0	20
1996	3	1	1	0	1	0	6
1997	8	0	4	0	2	2	16
1998	2	0	6	0	0	0	8

**Table 2.12**      **Restraint Use for Children (0 - 4 Years)  
Involved in Fatal and Personal Injury Collisions by Severity of Injury 1998**

Restraint Used	Injury Level		
	Major / Fatal %	Minimal/Minor %	No Injuries %
Child Restraint Used Correctly	22.7	41.5	45.8
Child Restraint Used Incorrectly	5.7	4.1	2.1
Lap/Lap-Shoulder Belt	41.5	46.6	47.0
Not Available	7.5	2.0	1.2
Available/Not Used	15.1	2.2	0.5
Other	1.9	0.8	0.1
Unknown	5.6	2.8	3.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

It is known from observation surveys that many child safety seats are not used correctly. This is not clear in these tables since children are often removed from the child safety seat before the police officer arrives on the scene. Both correct installation of the seats according to the manufacturer's instructions and correct use of the device in the vehicle are important for the child's protection.



**Table 2.13**      **Pedestrian Condition by  
Severity of Injury 1998**

Condition of Pedestrian	Killed	Injured
Normal	41	3,348
Had Been Drinking	6	246
Ability Impaired Alcohol over .08	13	14
Ability Impaired Alcohol	4	65
Ability Impaired Drugs	4	8
Fatigue	0	5
Medical or Physical Defect	3	91
Inattentive	18	618
Other	0	68
Unknown	32	515
<b>Total</b>	<b>121</b>	<b>4,978</b>

**Table 2.14**      **Apparent Pedestrian Action  
by Severity of Injury 1998**

Apparent Pedestrian Action	Killed	Injured
Crossing Intersection With Right of Way	14	1,519
Crossing Intersection Without Right of Way	22	788
Crossing Intersection No Traffic Control	11	341
Crossing Pedestrian Crossover	3	134
Crossing Marked Crosswalk Without Right of Way	4	94
Walking on Roadway With Traffic	10	114
Walking on Roadway Against Traffic	2	53
On Sidewalk or Shoulder	4	302
Playing or Working on Highway	2	100
Coming from Behind Parked Vehicle or Object	4	192
Running onto Roadway	10	594
Getting On/Off School Bus*	0	15
Getting On/Off Vehicle	0	60
Pushing/Working on Vehicle	3	23
Other	32	649
Unknown	0	0
<b>Total</b>	<b>121</b>	<b>4,978</b>

\* Calendar Year

## 2b. Putting the People in Context

**Table 2.15** Category of Persons Killed and Injured 1988-1998

Year	Ontario												
	Population	Driver		Passenger*		Pedestrian		All Others		Persons Killed		Persons Injured	
	(Est.)**									In All Classes		In All Classes	
											Rate Per		Rate Per
		Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Number	100,000	Number	100,000
1988	9,439,600	563	63,339	350	39,157	186	6,344	138	9,318	1,237	13.1	118,158	1,251.7
1989	9,598,600	627	66,334	369	39,950	161	6,187	129	8,181	1,286	13.4	120,652	1,257.0
1990	9,743,300	540	55,073	321	33,606	154	5,839	105	7,057	1,120	11.5	101,575	1,042.5
1991	10,084,900	542	48,021	298	30,230	157	5,352	105	6,916	1,102	10.9	90,519	897.6
1992	10,098,600	548	49,259	317	30,567	140	5,177	85	6,022	1,090	10.8	91,025	901.4
1993	10,813,200	595	49,628	296	30,584	146	5,181	98	5,756	1,135	10.5	91,149	842.9
1994	10,927,800	508	49,632	273	29,570	127	5,344	91	5,484	999	9.1	90,030	823.9
1995	11,100,000	527	49,916	276	29,440	126	5,261	70	4,955	999	9.0	89,572	807.0
1996	11,320,456	459	49,614	270	28,997	144	5,336	55	4,458	928	8.2	88,405	780.9
1997	11,500,329	474	47,861	224	27,915	133	5,154	68	4,597	899	7.8	85,527	743.7
1998	11,675,497	437	47,088	222	26,422	121	4,978	74	4,704	854	7.3	83,192	712.5

\* Excludes motorcycle passengers, who are included with "All Others".

\*\* Source: Ministry of Finance

**Table 2.16** Sex of Driver Population by Age Groups 1998

Sex of Driver	Age Groups							Total
	16-19	20-24	25-34	35-44	45-54	55-64	65+	
Male	221,583	334,097	831,226	962,043	746,227	481,152	543,502	4,119,830
Female	191,006	299,956	762,518	883,431	669,031	391,274	410,710	3,607,926
Total	412,589	634,053	1,593,744	1,845,474	1,415,258	872,426	954,212	7,727,756

**Table 2.17** Driver Population by Age Groups 1988-1998

Year	Age Groups							Total
	16-19	20-24	25-34	35-44	45-54	55-64	65+	
1988	310,764	643,691	1,588,516	1,353,841	898,103	714,266	608,931	6,118,112
1989	323,109	631,470	1,634,187	1,409,053	931,991	720,788	639,826	6,290,424
1990	322,542	629,478	1,666,474	1,467,699	964,925	728,380	669,385	6,448,883
1991	319,584	627,931	1,673,502	1,501,765	1,018,365	736,652	696,432	6,574,231
1992	314,685	623,707	1,665,433	1,528,726	1,082,883	745,759	727,568	6,688,761
1993	326,389	621,934	1,655,573	1,566,083	1,136,365	758,840	758,244	6,823,428
1994	358,817	622,704	1,645,962	1,611,972	1,190,442	770,882	783,181	6,983,960
1995	360,847	614,094	1,621,989	1,659,749	1,240,072	782,871	806,396	7,086,018
1996	361,571	612,060	1,608,567	1,717,050	1,297,289	805,486	856,144	7,258,167
1997	394,512	624,532	1,611,708	1,789,110	1,360,555	837,606	919,584	7,537,607
1998	412,589	634,053	1,593,744	1,845,474	1,415,258	872,426	954,212	7,727,756

Table 2.18 Driver Licence Class by Sex 1998

Licence Class	Driver Sex				Total	
	Male	%	Female	%		%
A	85,567	2.08	1,547	.04	87,114	1.13
AB	4,314	.10	438	.01	4,752	.06
ABM	2,416	.06	128	.00	2,544	.03
ABM1	26	.00	9	.00	35	.00
ABM2	90	.00	16	.00	106	.00
AC	15,649	.38	457	.01	16,106	.21
ACM	7,826	.19	99	.00	7,925	.10
ACM1	137	.00	2	.00	139	.00
ACM2	337	.01	4	.00	341	.00
AM	29,279	.71	196	.01	29,475	.38
AM1	611	.01	9	.00	620	.01
AM2	1,308	.03	21	.00	1,329	.02
B	16,016	.39	15,440	.43	31,456	.41
BM	4,509	.11	897	.02	5,406	.07
BM1	62	.00	32	.00	94	.00
BM2	166	.00	94	.00	260	.00
C	5,768	.14	463	.01	6,231	.08
CM	1,735	.04	55	.00	1,790	.02
CM1	17	.00	2	.00	19	.00
CM2	62	.00	7	.00	69	.00
D	215,668	5.23	14,571	.40	230,239	2.98
DE	102	.00	15	.00	117	.00
DEM	27	.00	1	.00	28	.00
DEM1	0	.00	1	.00	1	.00
DEM2	2	.00	0	.00	2	.00
DF	2,130	.05	95	.00	2,225	.03
DFM	960	.02	17	.00	977	.01
DFM1	17	.00	1	.00	18	.00
DFM2	33	.00	2	.00	35	.00
DM	53,526	1.30	970	.03	54,496	.71
DM1	778	.02	29	.00	807	.01
DM2	1,685	.04	83	.00	1,768	.02
E	1,226	.03	2,083	.06	3,309	.04
EM	183	.00	49	.00	232	.00
EM1	1	.00	3	.00	4	.00
EM2	5	.00	7	.00	12	.00

Continued on next page

Table 2.18

## Driver Licence Class by Sex 1998

Continued

Licence Class	Driver Sex				Total	%
	Male	%	Female	%		
F	7,315	.18	4,977	.14	12,292	.16
FM	1,703	.04	251	.01	1,954	.03
FM1	41	.00	16	.00	57	.00
FM2	120	.00	22	.00	142	.00
G	2,814,197	68.31	3,020,524	83.72	5,834,721	75.50
G1	156,348	3.80	202,597	5.62	358,945	4.64
G1M	97	.00	20	.00	117	.00
G1M1	883	.02	88	.00	971	.01
G1M2	573	.01	80	.00	653	.01
G2	307,524	7.46	281,109	7.79	588,633	7.62
G2M	715	.02	94	.00	809	.01
G2M1	2,652	.06	219	.01	2,871	.04
G2M2	3,733	.09	269	.01	4,002	.05
GM	334,956	8.13	51,975	1.44	386,931	5.01
GM1	12,426	.30	2,573	.07	14,999	.19
GM2	21,942	.53	4,839	.13	26,781	.35
M	1,294	.03	257	.01	1,551	.02
M1	397	.01	59	.00	456	.01
M2	676	.02	114	.00	790	.01
Other	0	.00	0	.00	0	.00
<b>Total</b>	<b>4,119,830</b>	<b>100</b>	<b>3,607,926</b>	<b>100</b>	<b>7,727,756</b>	<b>100</b>



**Table 2.19 Licensed Drivers, Total Collisions, Persons Killed and Injured 1931-1998**

Year	Licensed Drivers	Total Collisions	Persons Killed	Persons Injured
1931	666,266	9,241	571	8,494
1932	648,710	9,171	502	8,231
1933	638,710	8,634	403	7,877
1934	665,743	9,645	512	8,990
1935	707,457	10,648	560	9,839
1936	755,765	11,388	546	10,251
1937	802,765	13,906	766	12,092
1938	866,729	13,715	640	11,683
1939	899,572	13,710	652	11,638
1940	937,551	16,921	716	13,715
1941	986,773	18,167	801	14,275
1942	961,883	13,490	567	10,205
1943	919,457	11,025	549	8,628
1944	905,650	11,004	498	8,373
1945	971,852	13,458	598	9,804
1946	1,087,445	17,356	688	12,228
1947	1,144,291	22,293	734	13,056
1948	1,209,408	27,406	740	14,970
1949	1,278,584	34,472	830	17,469
1950	1,366,388	43,681	791	19,940
1951	1,461,538	54,920	949	22,557
1952	1,556,559	58,515	1,010	23,643
1953	1,656,259	65,866	1,082	24,353
1954	1,747,567	62,509	1,045	24,607
1955	1,856,845	63,219	1,111	26,246
1956	1,967,789	71,399	1,180	28,626
1957	2,088,551	76,302	1,279	30,414
1958	2,176,417	76,884	1,112	30,106
1959	2,270,246	81,518	1,187	31,602
1960	2,355,567	87,186	1,166	34,436
1961	2,414,615	85,577	1,268	37,146
1962	2,469,425	94,231	1,383	41,766
1963	2,555,015	104,919	1,421	47,801
1964	2,694,023	111,232	1,424	54,560
1965	2,739,138	128,462	1,611	60,917
1966	2,821,648	139,781	1,596	65,210
1967	3,004,654	145,008	1,719	67,280
1968	3,128,509	155,127	1,586	71,520
1969	3,247,979	169,395	1,683	74,902
1970	3,422,892	141,609	1,535	75,126
1971	3,563,197	158,831	1,769	84,650
1972	3,688,541	189,494	1,934	95,181

Continued on next page

**Table 2.19 Licensed Drivers, Total Collisions, Persons Killed and Injured 1931-1998**

Year	Licensed Drivers	Total Collisions	Persons Killed	Persons Injured
1973	3,841,628	193,021	1,959	97,790
1974	3,972,980	204,271	1,748	98,673
1975	4,160,623	213,689	1,800	97,034
1976	4,315,925	211,865	1,511	83,736
1977	4,562,903	218,567	1,420	95,664
1978	4,725,546	186,363	1,450	94,979
1979	4,858,351	197,196	1,560	101,321
1980	4,993,531	196,501	1,508	101,367
1981	5,123,177	198,372	1,445	100,321
1982	5,247,198	187,943	1,138	92,815
1983	5,380,259	181,999	1,204	91,706
1984	5,513,911	194,782	1,132	97,230
1985	5,660,422	189,750	1,191	109,169
1986	5,817,799	187,286	1,102	108,839
1987	5,978,105	203,431	1,229	121,089
1988	6,118,112	228,398	1,237	118,158
1989	6,290,424	247,038	1,286	120,652
1990	6,448,883	220,188	1,120	101,575
1991	6,574,231	213,669	1,102	90,519
1992	6,688,761	224,249	1,090	91,025
1993	6,823,428	228,834	1,135	91,149
1994*	6,983,960	226,996	999	90,030
1995	7,086,018	219,085	999	89,572
1996	7,258,167	215,024	929	88,445
1997	7,537,607	221,500	899	85,527
1998	7,727,756	213,356	854	83,192

\* Graduated Licensing System (GLS) began on April 1, 1994. See Appendix for further details on GLS.

**Table 2.20 Driver Age Groups - Number Licensed, Collision Involvement and  
Per Cent Involved in Collisions 1998**

Drivers Age	Drivers Licensed			Drivers Involved in Collisions*			% of Drivers of Each Age Involved in Collisions		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Under 16	-	-	-	245	82	327	-	-	-
16	44,525	37,056	81,581	1,122	589	1,711	2.5	1.6	2.1
17	53,983	46,713	100,696	4,946	2,806	7,752	9.2	6.0	7.7
18	60,371	52,576	112,947	5,904	3,128	9,032	9.8	5.9	8.0
19	62,704	54,661	117,365	5,886	3,105	8,991	9.4	5.7	7.7
20	63,578	55,767	119,345	5,820	2,888	8,708	9.2	5.2	7.3
21-24	270,519	244,189	514,708	22,650	11,832	34,482	8.4	4.8	6.7
25-34	831,226	762,518	1,593,744	59,274	29,826	89,100	7.1	3.9	5.6
35-44	962,043	883,431	1,845,474	55,758	30,094	85,852	5.8	3.4	4.7
45-54	746,227	669,031	1,415,258	38,080	19,654	57,734	5.1	2.9	4.1
55-64	481,152	391,274	872,426	20,946	8,615	29,561	4.4	2.2	3.4
65-74	356,434	270,557	626,991	11,978	5,367	17,345	3.4	2.0	2.8
75 & over	187,068	140,153	327,221	6,173	3,182	9,355	3.3	2.3	2.9
Unknown	-	-	-	31,216	3	31,219	-	-	-
<b>Total</b>	<b>4,119,830</b>	<b>3,607,926</b>	<b>7,727,756</b>	<b>269,998</b>	<b>121,171</b>	<b>391,169</b>	<b>6.6</b>	<b>3.4</b>	<b>5.1</b>

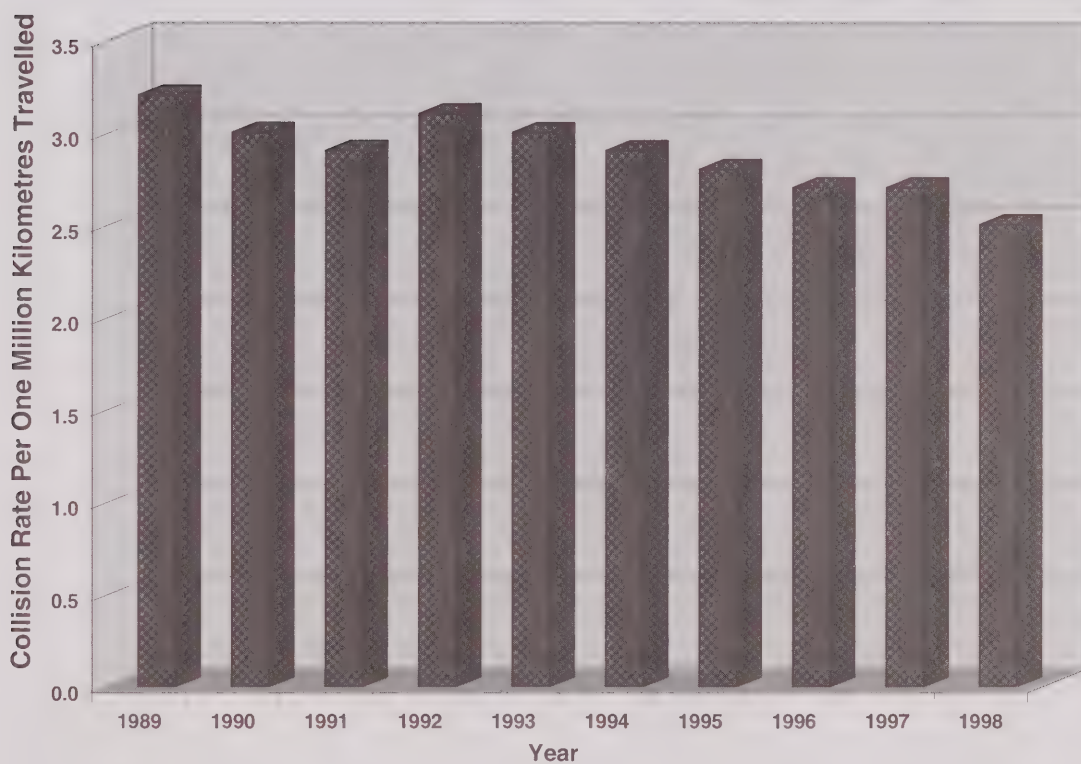
\* This table includes collisions with parked vehicles and excludes drivers of non-motor vehicles, i. e. bicyclists, snow vehicle operators, etc.





### 3 The Collision

#### Collision Rate Per One Million Kilometres Travelled in Ontario - 1989 to 1998



### 3a. Types of Collisions

Table 3.1 Class of Collision 1988-1998

Year	Class of Collision			Total
	Personal		Property	
	Fatal	Injury	Damage	
1988	1,076	76,724	150,598	228,398
1989	1,106	77,852	168,080	247,038
1990	959	65,912	153,317	220,188
1991	956	59,242	153,471	213,669
1992	942	58,889	164,418	224,249
1993	987	58,932	168,915	228,834
1994	875	58,525	167,596	226,996
1995	860	58,273	159,952	219,085
1996	816	57,791	156,417	215,024
1997	807	56,121	164,572	221,500
1998	768	55,441	157,147	213,356

Table 3.2 Collision Rate Per One Million  
Kilometres Travelled 1988-1998

Year	Collision Rate
1988	3.2
1989	3.2
1990	3.0
1991	2.9
1992	3.1
1993	3.0
1994	2.9
1995	2.8
1996	2.7
1997	2.7
1998	2.5

Table 3.3 Motor Vehicles Involved in Collisions Based on Initial Impact 1998\*

Motor Vehicle in Collision Involving	Class of Collision			Total
		Personal	Property	
Moveable Objects:	Fatal	Injury	Damage	
Other Motor Vehicles	789	84,423	237,759	322,971
Unattended Vehicles	6	632	12,260	12,898
Pedestrian	115	4,461	139	4,715
Cyclist	37	3,113	418	3,568
Railway Train	11	16	38	65
Street Car	0	64	327	391
Farm Tractor	2	46	78	126
Domestic Animal	1	95	572	668
Wild Animal	3	405	7,856	8,264
Other Moveable Objects	3	37	145	185
<b>Sub-total</b>	<b>967</b>	<b>93,292</b>	<b>259,592</b>	<b>353,851</b>
<b>Fixed Objects:</b>				
Cable Guide Rail	0	60	335	395
Concrete Guide Rail	2	169	462	633
Steel Guide Rail	2	195	715	912
Pole (Utility Tower)	10	391	1,284	1,685
Pole (Sign/Parking Meter)	2	116	712	830
Fence/Noise Barrier	1	41	194	236
Culvert	1	27	28	56
Bridge Support	1	27	96	124
Rock Face	1	13	35	49
Snow Bank or Drift	0	28	91	119
Ditch	15	348	647	1,010
Curb	7	497	1,485	1,989
Crash Cushion	0	14	37	51
Building or Wall	1	39	161	201
Water Course	0	1	9	10
Construction Marker	0	3	43	46
Tree, Shrub, or Stump	3	126	388	517
Other Fixed Object	6	238	1,326	1,570
<b>Sub-total</b>	<b>52</b>	<b>2,333</b>	<b>8,048</b>	<b>10,433</b>
<b>Other Events:</b>				
Ran Off Road	129	3,734	7,093	10,956
Skidding/Sliding	123	4,763	12,788	17,674
Jack-knifing	1	29	106	136
Load Spill	0	9	52	61
Fire/Explosion	0	7	312	319
Submersion	0	2	3	5
Rollover	4	220	309	533
Debris on Road	1	109	709	819
Debris off Vehicle	2	120	850	972
Other Non-Collision Event	24	1,642	4,121	5,787
<b>Sub-total</b>	<b>284</b>	<b>10,635</b>	<b>26,343</b>	<b>37,262</b>
<b>Total</b>	<b>1,303</b>	<b>106,260</b>	<b>293,983</b>	<b>401,546</b>

\* Table 3.3 reflects the number of motor vehicles involved in collisions by initial impact.

**Table 3.4** Initial Impact Type  
by Class of Collision 1998

Initial Impact Type	Class of Collision			Total
		Personal	Property	
	Fatal	Injury	Damage	
Approaching	133	1,124	1,581	2,838
Angle	110	7,265	15,054	22,429
Rear End	32	17,007	39,179	56,218
Sideswipe	63	2,802	17,655	20,520
Turning Movement	69	11,633	33,720	45,422
With Unattended Motor Vehicle	8	655	12,387	13,050
Single Motor Vehicle	353	14,815	35,137	50,305
Other	0	137	2,428	2,565
Unknown	0	3	6	9
<b>Total</b>	<b>768</b>	<b>55,441</b>	<b>157,147</b>	<b>213,356</b>



### 3b. Time and Environment

**Table 3.5 Month of Occurrence by Class of Collision 1998**

Month of Occurrence	Class of Collision						Total	%
			Personal		Property			
	Fatal	%	Injury	%	Damage	%		
January	53	6.9	4,709	8.5	16,508	10.5	21,270	10.0
February	44	5.7	3,233	5.8	9,025	5.7	12,302	5.8
March	48	6.3	4,269	7.7	13,408	8.5	17,725	8.3
April	47	6.1	3,918	7.1	10,108	6.4	14,073	6.6
May	56	7.3	4,923	8.9	12,410	7.9	17,389	8.2
June	55	7.2	5,085	9.2	12,535	8.0	17,675	8.3
July	77	10.0	4,969	9.0	11,845	7.5	16,891	7.9
August	82	10.7	4,982	9.0	12,060	7.7	17,124	8.0
September	84	10.9	4,922	8.9	12,642	8.0	17,648	8.3
October	75	9.8	4,986	9.0	14,449	9.2	19,510	9.1
November	67	8.7	4,482	8.1	14,741	9.4	19,290	9.0
December	80	10.4	4,963	9.0	17,416	11.1	22,459	10.5
Total	768	100	55,441	100	157,147	100	213,356	100.0

**Table 3.6 Day of Week by Class of Collision 1998**

Day of Occurrence	Class of Collision						Total	%
			Personal		Property			
	Fatal	%	Injury	%	Damage	%		
Monday	89	11.6	7,575	13.7	21,592	13.7	29,256	13.7
Tuesday	96	12.5	8,399	15.1	24,212	15.4	32,707	15.3
Wednesday	93	12.1	8,173	14.7	22,723	14.5	30,989	14.5
Thursday	99	12.9	8,448	15.2	25,193	16.0	33,740	15.8
Friday	116	15.1	8,938	16.1	25,865	16.5	34,919	16.4
Saturday	150	19.5	7,790	14.2	21,555	13.7	29,495	13.8
Sunday	125	16.3	6,118	11.0	16,007	10.2	22,250	10.4
Total	768	100.0	55,441	100.0	157,147	100.0	213,356	100.0

Table 3.7 Hour of Occurrence by Class of Collision 1998

Hour of Occurrence A.M.	Class of Collision						Total	%
			Personal		Property			
	Fatal	%	Injury	%	Damage	%		
12 to 1 a.m.	17	2.2	831	1.5	2,469	1.6	3,317	1.6
1 to 2 a.m.	29	3.8	709	1.3	2,311	1.5	3,049	1.4
2 to 3 a.m.	35	4.6	801	1.4	2,341	1.5	3,177	1.5
3 to 4 a.m.	25	3.3	634	1.1	1,863	1.2	2,522	1.2
4 to 5 a.m.	19	2.5	370	0.7	1,253	0.8	1,642	0.8
5 to 6 a.m.	21	2.6	444	0.8	1,521	1.0	1,986	0.9
Sub total	146	19	3,789	6.8	11,758	7.6	15,693	7.4
6 to 7 a.m.	25	3.3	1,072	1.9	3,447	2.2	4,544	2.1
7 to 8 a.m.	28	3.6	2,037	3.7	5,991	3.8	8,056	3.8
8 to 9 a.m.	15	2.0	3,263	5.9	9,622	6.1	12,900	6.0
9 to 10 a.m.	24	3.1	2,373	4.3	6,999	4.5	9,396	4.4
10 to 11 a.m.	29	3.8	2,289	4.1	7,195	4.6	9,513	4.5
11 to 12 noon	29	3.7	2,925	5.3	8,340	5.3	11,294	5.3
Sub total	150	19.5	13,959	25.2	41,594	26.5	55,703	26.1
Hour of								
Occurrence P.M.								
12 to 1 p.m.	33	4.3	3,423	6.2	9,441	6.0	12,897	6.0
1 to 2 p.m.	30	3.9	3,363	6.1	9,170	5.8	12,563	5.9
2 to 3 p.m.	37	4.8	3,616	6.5	9,515	6.1	13,168	6.2
3 to 4 p.m.	55	7.2	4,677	8.4	11,992	7.6	16,724	7.8
4 to 5 p.m.	41	5.3	4,514	8.1	12,286	7.8	16,841	7.9
5 to 6 p.m.	42	5.5	4,690	8.5	12,765	8.1	17,497	8.2
Sub total	238	31.0	24,283	43.8	65,169	41.4	89,690	42.0
6 to 7 p.m.	48	6.3	3,783	6.8	10,142	6.5	13,973	6.5
7 to 8 p.m.	48	6.3	2,862	5.2	7,511	4.8	10,421	4.9
8 to 9 p.m.	35	4.6	1,976	3.6	5,624	3.6	7,635	3.6
9 to 10 p.m.	34	4.4	1,848	3.3	5,324	3.4	7,206	3.4
10 to 11 p.m.	36	4.7	1,417	2.6	4,645	3.0	6,098	2.9
11 to 12 midnight	27	3.4	1,219	2.1	3,758	2.2	5,004	2.3
Sub total	228	29.7	13,105	23.6	37,004	23.5	50,337	23.6
Unknown	6	0.8	305	0.6	1,622	1.0	1,933	0.9
Total	768	100.0	55,441	100.0	157,147	100.0	213,356	100.0

**Table 3.8 Statutory Holidays, Holiday Weekends - Fatal Collisions, Persons Killed and Injured 1998**

Statutory Holiday*	Number of Fatal	Drivers		Passengers		Others		Total	
	Collisions	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
Easter Weekend	6	4	5	2	5	0	0	6	10
Victoria Day	8	6	4	4	9	0	0	10	13
Canada Day	6	5	4	1	5	0	0	6	9
Civic Holiday (Simcoe Day)	14	9	8	4	18	1	1	14	27
Labour Day	20	12	8	5	15	4	3	21	26
Thanksgiving Day	13	9	9	4	13	1	0	14	22
Christmas/Boxing Day	6	3	6	5	2	0	0	8	8

\* Actual length may vary depending on the calendar year. For certain holidays, it might include the whole weekend.

**Table 3.9 Light Condition by Class of Collision 1998**

Light Condition	Class of Collision						Total	%
			Personal		Property			
	Fatal	%	Injury	%	Damage	%		
Daylight	404	52.7	39,643	71.5	106,628	67.8	146,675	68.7
Dawn	14	1.8	673	1.2	2,607	1.7	3,294	1.5
Dusk	28	3.6	1,659	3.0	5,325	3.4	7,012	3.3
Darkness	322	41.9	13,449	24.3	42,315	26.9	56,086	26.3
Other	0	0.0	17	0.0	272	0.2	289	0.1
Total	768	100.0	55,441	100.0	157,147	100.0	213,356	100.0

**Table 3.10 Visibility by Class of Collision 1998**

Visibility	Class of Collision						Total	%
			Personal		Property			
	Fatal	%	Injury	%	Damage	%		
Clear	640	83.4	44,404	80.2	120,850	76.9	165,894	77.8
Rain	60	7.8	7,266	13.1	20,399	13.0	27,725	13.0
Snow	40	5.2	2,455	4.4	10,416	6.6	12,911	6.1
Freezing Rain	8	1.0	522	0.9	2,176	1.4	2,706	1.3
Drifting Snow	0	0.0	205	0.4	778	0.5	983	0.5
Strong Wind	7	0.9	75	0.1	383	0.2	465	0.2
Fog, Mist, Smoke, or Dust	11	1.4	415	0.7	1,503	1.0	1,929	0.9
Other	2	0.3	99	0.2	642	0.4	743	0.3
Total	768	100.0	55,441	100.0	157,147	100.0	213,356	100.0

**3c. The Collision Location****Table 3.11 Road Jurisdiction by Class of Collision 1998**

Road Jurisdiction	Class of Collision			Total
	Fatal	Personal	Property	
		Injury	Damage	
Municipal (Excl. Twp. Rd.)	206	32,349	90,557	123,112
Provincial Highway	221	8,395	24,974	33,590
Township	71	2,190	6,435	8,696
County or District	103	2,760	8,251	11,114
Regional Municipality	160	9,628	26,507	36,295
Federal	3	79	310	392
Other	4	40	113	157
<b>Total</b>	<b>768</b>	<b>55,441</b>	<b>157,147</b>	<b>213,356</b>

**Table 3.12 Road Jurisdiction for All Collisions 1988-1998**

Road Jurisdiction*	Year											Total
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
Municipal	159,228	139,926	117,218	112,651	117,800	119,421	117,478	114,848	112,980	123,423	123,112	1,358,085
Provincial	44,772	48,944	43,513	44,234	46,537	48,275	48,895	46,365	46,867	41,947	33,590	493,939
Township	12,277	11,882	10,684	10,332	10,777	10,667	10,497	9,774	9,236	9,557	8,696	114,379
County or District	7,527	8,773	8,582	8,482	9,186	9,076	8,839	8,815	8,381	9,574	11,114	98,349
Regional Municipality	3,620	36,237	39,004	36,956	38,810	40,230	40,165	38,279	36,738	36,341	36,295	382,675
Federal**	748	940	913	769	899	863	825	753	662	504	392	8,268
Other	226	336	274	245	240	302	297	251	160	154	157	2,642
<b>Total</b>	<b>228,398</b>	<b>247,038</b>	<b>220,188</b>	<b>213,669</b>	<b>224,249</b>	<b>228,834</b>	<b>226,996</b>	<b>219,085</b>	<b>215,024</b>	<b>221,500</b>	<b>213,356</b>	<b>2,458,337</b>

\* Collisions may not be comparable across the different years due to transfer of highways between jurisdictions.

\*\* Since January 1, 1988, the Motor Vehicle Accident Report form allows the recording of jurisdiction for federal roads.



**Table 3.13 Collision Location by Class of Collision 1998**

Road Location	Class of Collision						Total	%
			Personal		Property			
	Fatal	%	Injury	%	Damage	%		
Non-intersection	437	56.8	19,015	34.3	60,792	38.6	80,244	37.6
Intersection Related	88	11.5	12,966	23.4	35,437	22.6	48,491	22.7
At Intersection	163	21.2	16,352	29.5	33,823	21.5	50,338	23.6
At/Near Private Drive	56	7.3	6,477	11.7	24,928	15.9	31,461	14.7
At Railway	12	1.6	96	0.2	302	0.2	410	0.2
Underpass or Tunnel	0	0.0	69	0.1	287	0.2	356	0.2
Overpass or Bridge	12	1.6	359	0.6	990	0.6	1,361	0.6
Other	0	0.0	107	0.2	588	0.4	695	0.3
Total	768	100.0	55,441	100.0	157,147	100.0	213,356	100.0

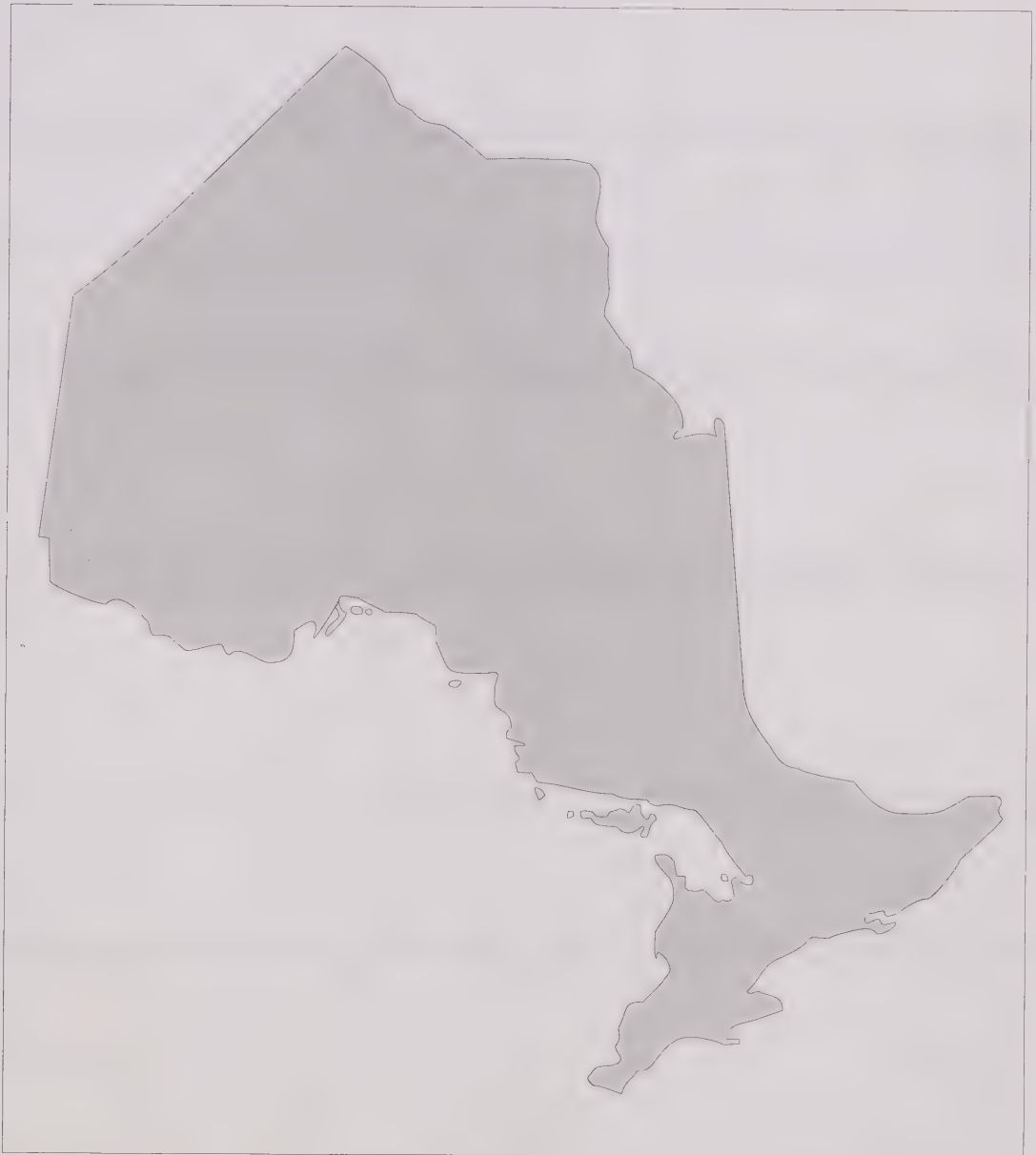
**Table 3.14 Road Surface Condition by Class of Collision 1998**

Road Surface	Class of Collision						Total	%
Condition			Personal		Property			
	Fatal	%	Injury	%	Damage	%		
Dry	569	74.1	40,116	72.3	107,315	68.3	148,000	69.4
Wet	120	15.6	10,798	19.5	31,227	19.9	42,145	19.8
Loose Snow	18	2.3	1,010	1.8	4,585	2.9	5,613	2.6
Slush	13	1.7	777	1.4	3,094	2.0	3,884	1.8
Packed Snow	13	1.7	640	1.2	3,308	2.1	3,961	1.9
Ice	25	3.3	1,657	3.0	6,234	4.0	7,916	3.7
Mud	0	0.0	7	0.0	68	0.0	75	0.0
Loose Sand or Gravel	3	0.4	314	0.6	807	0.5	1,124	0.5
Spilled Liquid	0	0.0	22	0.0	43	0.0	65	0.0
Other	7	0.9	100	0.2	466	0.3	573	0.3
Total	768	100.0	55,441	100.0	157,147	100.0	213,356	100.0



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## 4 Place of Collision in Ontario



## 4. Place of Collision in Ontario

Table 4.1\*

Location		Estimated Population (1998)*	Class of Collision				Persons		Motor Vehicle Registrations
			Total		Personal	Property			
			Collisions	Fatal	Injury	Damage	Killed	Injured	
<b>ONTARIO</b>		10,341,673	213,356	768	55,441	157,147	854	83,192	6,812,770 **
BLIND RIVER, T		3,521	29	0	10	19	0	14	
ELLIOT LAKE, C	M	11,565	62	0	16	46	0	19	
MICHIPICOTEN, TP	M	3,419	1	0	1	0	0	2	
SAULT STE. MARIE, C	M	75,463	1,421	0	353	1,068	0	527	
THESSALON, T		1,335	7	0	1	6	0	1	
PROVINCIAL HIGHWAY			562	10	160	392	10	266	
OTHER AREAS		13,422	220	1	50	169	1	77	
<b>ALGOMA</b>		108,725	2,302	11	591	1,700	11	906	88,353
BRANTFORD, C	M	80,436	1,568	1	346	1,221	1	496	
BRANTFORD, TP		6,234	54	1	17	36	1	27	
BURFORD, TP		5,763	19	0	8	11	0	16	
PARIS, T	M	8,653	72	0	20	52	0	21	
PROVINCIAL HIGHWAY			200	4	57	139	4	119	
OTHER AREAS		8,321	329	4	89	236	4	154	
<b>BRANT</b>		109,407	2,242	10	537	1,695	10	833	76,778
AMABEL, TP		3,664	25	1	5	19	1	8	
BRANT, TP		3,213	26	1	9	16	1	14	
CHESLEY, T		1,781	9	0	3	6	0	3	
KINCARDINE, T	M	6,277	67	0	11	56	0	15	
PORT ELGIN, T	M	6,618	69	0	19	50	0	26	
SAUGEEN, TP		1,775	21	0	4	17	0	5	
SOUTHAMPTON, T	M	2,994	23	0	6	17	0	9	
WALKERTON, T	M	4,752	50	0	15	35	0	22	
WIARTON, T		2,214	28	0	7	21	0	8	
PROVINCIAL HIGHWAY			187	1	65	121	1	123	
OTHER AREAS		28,280	447	6	108	333	7	167	
<b>BRUCE</b>		61,568	952	9	252	691	10	400	49,814
COCHRANE, T		4,357	49	0	9	40	0	13	
HEARST, T		5,471	67	0	16	51	0	22	
KAPUSKASING, T	M	9,501	89	1	20	68	1	24	
SMOOTH ROCK FALLS, T		1,823	5	0	0	5	0	0	
TIMMINS, C	M	45,845	594	1	186	407	2	274	
PROVINCIAL HIGHWAY			334	5	93	236	5	150	
OTHER AREAS		15,274	223	2	62	159	5	97	
<b>COCHRANE</b>		82,271	1,361	9	386	966	13	580	63,516

Table 4.1\*

Continued

Location		Estimated	Class of Collision				Persons		Motor Vehicle Registrations
		Population	Total		Personal	Property			
		(1998)*	Collisions	Fatal	Injury	Damage	Killed	Injured	
AMARANTH, TP		3,234	44	1	14	29	1	19	
MELANCTHON, TP		2,360	14	0	6	8	0	9	
MONO, T		6,045	59	0	18	41	0	29	
MULMUR, TP		2,627	42	0	12	30	0	27	
ORANGEVILLE, T	M	20,142	267	0	51	216	0	81	
SHELBURNE, T	M	3,375	52	1	4	47	3	4	
PROVINCIAL HIGHWAY			169	2	43	124	2	74	
OTHER AREAS		4,511	252	4	79	169	5	135	
<b>DUFFERIN</b>		<b>42,294</b>	<b>899</b>	<b>8</b>	<b>227</b>	<b>664</b>	<b>11</b>	<b>378</b>	<b>33,087</b>
AJAX, T		63,552	626	2	167	457	2	234	
BROCK, TP		11,637	113	2	29	82	2	53	
OSHAWA, C		131,952	2,005	4	566	1,435	6	830	
PICKERING, T		76,440	885	3	227	655	3	333	
SCUGOG, TP		18,505	250	3	69	178	3	114	
UXBRIDGE, TP		15,810	232	1	63	168	1	97	
WHITBY, T		73,303	916	9	255	652	9	375	
PROVINCIAL HIGHWAY			1,334	11	294	1,029	12	464	
OTHER AREAS		58,712	733	4	216	513	5	334	
<b>DURHAM</b>		<b>449,911</b>	<b>7,094</b>	<b>39</b>	<b>1,886</b>	<b>5,169</b>	<b>43</b>	<b>2,834</b>	<b>301,599</b>
AYLMER, T	M	6,476	64	0	14	50	0	18	
BAYHAM, TP		5,725	46	0	11	35	0	18	
MALAHIDE, TP		8,039	65	3	19	43	3	31	
ST THOMAS, C	M	31,107	361	2	105	254	2	161	
SOUTHWOLD, TP		4,215	34	1	8	25	1	16	
PROVINCIAL HIGHWAY			203	2	68	133	2	121	
OTHER AREAS		20,178	409	4	97	308	4	169	
<b>ELGIN</b>		<b>75,740</b>	<b>1,182</b>	<b>12</b>	<b>322</b>	<b>848</b>	<b>12</b>	<b>534</b>	<b>59,643</b>
AMHERSTBURG, T	M	19,303	121	2	33	86	2	43	
COLCHESTER SOUTH, TP	M	5,829	31	0	6	25	0	10	
ESSEX, T	M	6,789	124	0	23	101	0	32	
HARROW, T		2,734	29	0	5	24	0	6	
KINGSVILLE, T	M	5,938	38	0	12	26	0	14	
LEAMINGTON, T	M	16,151	282	0	41	241	0	60	
MERSEA, TP	M	8,891	61	0	17	44	0	33	
ROCHESTER, TP		4,407	10	0	2	8	0	2	
ST CLAIR BEACH, VL	M	3,700	9	0	0	9	0	0	



Table 4.1\*

Continued

Location		Estimated	Class of Collision				Persons		Motor Vehicle
		Population	Total		Personal	Property			Registrations
		(1998)*	Collisions	Fatal	Injury	Damage	Killed	Injured	
SANDWICH SOUTH, TP		6,783	81	0	9	72	0	22	
TECUMSEH, T		12,979	132	0	27	105	0	37	
TILBURY NORTH, TP		3,500	14	0	5	9	0	7	
TILBURY WEST, TP		1,778	4	0	1	3	0	1	
WINDSOR, C	M	200,062	4,539	5	1,015	3,519	5	1,435	
PROVINCIAL HIGHWAY			304	6	121	177	7	219	
OTHER AREAS		53,413	1,037	15	339	683	16	534	
ESSEX		352,257	6,816	28	1,656	5,132	30	2,455	231,476
KINGSTON, C	M	110,327	1,468	4	361	1,103	7	496	
PROVINCIAL HIGHWAY			288	2	84	202	2	144	
OTHER AREAS		21,327	553	2	150	401	2	207	
FRONTENAC		131,654	2,309	8	595	1,706	11	847	85,208
BENTINCK, TP		3,422	34	0	7	27	0	11	
DURHAM, T	M	2,507	23	0	9	14	0	18	
GLENELG, TP		2,092	14	0	4	10	0	6	
HANOVER, T	M	6,525	90	0	23	67	0	34	
HOLLAND, TP		2,840	28	0	8	20	0	18	
KEPPEL, TP		4,355	23	1	9	13	1	13	
MEAFORD, T	M	4,399	34	1	11	22	1	16	
NORMANBY, TP		2,534	28	0	5	23	0	5	
OSPREY, TP		2,099	14	0	5	9	0	13	
OWEN SOUND, C	M	20,380	269	1	76	192	1	113	
PROTON, TP		1,868	15	0	4	11	0	6	
SULLIVAN, TP		2,644	18	0	8	10	0	16	
SYDENHAM, TP		3,017	22	0	5	17	0	8	
PROVINCIAL HIGHWAY			300	2	77	221	2	138	
OTHER AREAS		23,888	538	4	158	376	4	246	
GREY		82,570	1,450	9	409	1,032	9	661	57,026
DELHI, TP		15,154	197	2	62	133	2	100	
DUNNVILLE, T		11,781	129	1	38	90	1	58	
HALDIMAND, T		21,670	158	3	50	105	3	76	
NANTICOKE, C		22,000	241	1	61	179	1	94	
NORFOLK, TP		11,019	149	0	41	108	0	65	
SIMCOE, T		14,623	261	0	56	205	0	78	
PROVINCIAL HIGHWAY			233	3	90	140	3	155	
OTHER AREAS		0	128	0	33	95	0	46	

Table 4.1\*

Continued

Location		Estimated	Class of Collision				Persons		Motor Vehicle
		Population	Total		Personal	Property			Registrations
		(1998)*	Collisions	Fatal	Injury	Damage	Killed	Injured	
HALDIMAND-NORFOLK		96,247	1,496	10	431	1,055	10	672	79,300
ANSON,HINDON & MINDEN, T		3,185	37	0	9	28	0	10	
DYSART ET AL, TP		4,671	20	0	2	18	0	4	
PROVINCIAL HIGHWAY			154	2	41	111	2	85	
OTHER AREAS		6,086	167	0	34	133	0	45	
HALIBURTON		13,942	378	2	86	290	2	144	12,304
BURLINGTON, C		132,772	1,549	5	405	1,139	5	613	
HALTON HILLS, T		41,540	413	1	103	309	1	135	
MILTON, T		31,406	525	5	145	375	5	229	
OAKVILLE, T		123,895	1,395	2	313	1,080	3	477	
PROVINCIAL HIGHWAY			1,633	7	372	1,254	8	643	
OTHER AREAS		0	49	0	14	35	0	24	
HALTON		329,613	5,564	20	1,352	4,192	22	2,121	239,057
ANCASTER, T		23,920	260	1	76	183	1	121	
DUNDAS, T		23,036	154	0	61	93	0	101	
FLAMBOROUGH, T		33,604	213	0	69	144	0	124	
GLANBROOK, TP		10,625	93	1	30	62	1	43	
HAMILTON, C		316,190	3,933	5	1,595	2,333	5	2,285	
STONEY CREEK, C		54,166	445	4	189	252	5	286	
PROVINCIAL HIGHWAY			789	10	254	525	12	417	
OTHER AREAS		0	76	0	32	44	0	49	
HAMILTON-WENTWORTH		461,541	5,963	21	2,306	3,636	24	3,426	275,171
BANCROFT, T		2,264	60	0	13	47	0	23	
BELLEVILLE, C		M 42,722	833	1	179	653	1	295	
DESERONTO, T		M 1,651	12	0	1	11	0	1	
MARMORA LAKE, TP		2,234	5	0	1	4	0	1	
TYENDINAGA, TP		3,355	49	0	15	34	0	32	
PROVINCIAL HIGHWAY			520	4	134	382	4	226	
OTHER AREAS		66,417	887	5	230	652	5	350	
HASTINGS		118,643	2,366	10	573	1,783	10	928	90,923
CLINTON, T		M 3,040	34	0	4	30	0	6	
COLBORNE, TP		2,106	4	0	1	3	0	1	
EXETER, T		M 4,354	67	0	16	51	0	33	
GODERICH, T		M 7,428	113	0	20	93	0	29	
GODERICH, TP		2,630	16	0	5	11	0	10	
GREY, TP		1,966	18	0	10	8	0	14	

Table 4.1\*

Continued

Location		Estimated	Class of Collision				Persons		Motor Vehicle
		Population	Total		Personal	Property			Registrations
		(1998)*	Collisions	Fatal	Injury	Damage	Killed	Injured	
HOWICK, TP		3,495	13	0	4	9	0	6	
MORRIS, TP		1,770	14	0	4	10	0	4	
SEAFORTH, T	M	2,288	18	0	3	15	0	4	
STEPHEN, TP		4,245	17	0	7	10	0	10	
TUCKERSMITH, TP		3,038	10	0	3	7	0	6	
TURNBERRY, TP		1,741	11	0	2	9	0	2	
WINGHAM, T	M	2,883	23	0	2	21	0	2	
PROVINCIAL HIGHWAY			167	4	43	120	4	80	
OTHER AREAS		17,764	406	6	95	305	6	181	
HURON		58,748	931	10	219	702	10	388	41,158
DRYDEN, C	M	7,731	95	0	10	85	0	13	
IGNACE, TP		1,499	7	0	0	7	0	0	
JAFFRAY AND MELICK, TP		3,970	47	0	10	37	0	15	
KEEWATIN, T		1,986	21	1	3	17	3	10	
KENORA, T	M	9,488	202	0	31	171	0	42	
RED LAKE, T		4,082	17	0	3	14	0	3	
SIOUX LOOKOUT, T		4,757	47	0	10	37	0	14	
PROVINCIAL HIGHWAY			637	3	134	500	4	200	
OTHER AREAS		2,861	155	1	38	116	1	64	
KENORA		36,374	1,228	5	239	984	8	361	39,315
PROVINCIAL HIGHWAY		0	169	4	58	107	4	126	
OTHER AREAS		103,277	1,479	11	438	1,030	12	657	
KENT		103,277	1,648	15	496	1,137	16	783	81,136
BOSANQUET, T		5,282	35	1	10	24	1	14	
BROOKE, TP		1,827	21	1	9	11	1	17	
ENNISKILLEN, TP		3,212	22	0	7	15	0	7	
FOREST, T		2,849	20	0	1	19	0	1	
MOORE, TP		10,776	63	1	7	55	1	8	
PETROLIA, T	M	4,792	43	0	9	34	0	14	
PLYMPTON, TP		5,038	42	2	16	24	2	22	
POINT EDWARD, VL	M	2,237	17	0	11	6	0	15	
SARNIA-CLEARWATER, C	M	70,383	979	3	238	738	3	362	
SOMBRA, TP		4,149	17	0	6	11	0	12	
WARWICK, TP		4,060	26	0	10	16	0	14	
WYOMING, VL		2,051	7	0	5	2	0	9	
PROVINCIAL HIGHWAY			181	4	51	126	5	87	

Table 4.1\*

Continued

Location		Estimated Population (1998)*	Class of Collision				Persons		Motor Vehicle Registrations
			Total		Personal	Property			
			Collisions	Fatal	Injury	Damage	Killed	Injured	
OTHER AREAS		6,614	301	9	79	213	12	140	
<b>LAMBTON</b>		<b>123,270</b>	<b>1,774</b>	<b>21</b>	<b>459</b>	<b>1,294</b>	<b>25</b>	<b>722</b>	<b>89,244</b>
CARLETON PLACE, T	M	8,296	95	1	14	80	1	18	
MONTAGUE, TP		3,051	24	2	1	21	2	7	
PERTH, T	M	5,808	187	1	33	153	1	57	
SMITHS FALLS, T	M	8,969	231	1	30	200	1	37	
PROVINCIAL HIGHWAY			157	2	33	122	2	56	
OTHER AREAS		31,347	615	5	117	493	5	190	
<b>LANARK</b>		<b>57,471</b>	<b>1,309</b>	<b>12</b>	<b>228</b>	<b>1,069</b>	<b>12</b>	<b>365</b>	<b>42,318</b>
AUGUSTA, TP		7,327	38	1	9	28	1	11	
BROCKVILLE, C	M	20,942	360	1	68	291	1	91	
CARDINAL, VL	M	1,629	5	0	1	4	0	1	
EDWARDSBURG, TP		4,640	44	0	4	40	0	4	
ELIZABETHTOWN, TP		7,259	45	0	9	36	0	16	
F OF LEEDS and LANSLOWNE, TP		4,779	30	1	7	22	1	11	
FRONT OF YONGE, TP		2,417	17	1	4	12	2	6	
KITLEY, TP		2,359	17	0	5	12	0	5	
PRESCOTT, T	M	3,995	73	1	18	54	1	26	
R LEEDS AND LANSLOWNE, TP		2,670	16	0	4	12	0	5	
R YONGE AND ESCOTT, TP		1,948	13	0	3	10	0	4	
PROVINCIAL HIGHWAY			496	3	125	368	5	227	
OTHER AREAS		31,493	800	8	183	609	9	270	
<b>LEEDS &amp; GRENVILLE</b>		<b>91,458</b>	<b>1,954</b>	<b>16</b>	<b>440</b>	<b>1,498</b>	<b>20</b>	<b>677</b>	<b>68,407</b>
PROVINCIAL HIGHWAY			273	4	78	191	4	121	
OTHER AREAS		35,629	472	2	114	356	2	173	
<b>LENNOX &amp; ADDINGTON</b>		<b>35,629</b>	<b>745</b>	<b>6</b>	<b>192</b>	<b>547</b>	<b>6</b>	<b>294</b>	<b>24,604</b>
PROVINCIAL HIGHWAY		0	155	3	41	111	3	63	
OTHER AREAS		7,274	100	1	21	78	2	33	
<b>MANITOULIN</b>		<b>7,274</b>	<b>255</b>	<b>4</b>	<b>62</b>	<b>189</b>	<b>5</b>	<b>96</b>	<b>9,757</b>
ADELAIDE, TP		1,942	20	1	8	11	1	16	
BIDDULPH, TP		2,189	14	0	6	8	0	9	
CARADOC, TP		6,031	54	2	9	43	2	20	
EKFRID, TP		2,236	17	1	8	8	1	16	
GLENCOE, VL		2,078	13	0	3	10	0	3	
LONDON, C	M	330,030	7,049	11	2,290	4,748	12	3,424	
LUCAN, VL		1,896	10	0	0	10	0	0	



Table 4.1\*

Continued

Location		Estimated	Class of Collision				Persons		Motor Vehicle
		Population	Total		Personal	Property			Registrations
		(1998)*	Collisions	Fatal	Injury	Damage	Killed	Injured	
MCGILLIVRAY, TP		1,807	15	0	3	12	0	3	
NORTH DORCHESTER, TP		8,382	146	1	41	104	1	61	
WEST MISSOURI, TP		3,317	39	0	16	23	0	25	
STRATHROY, T	M	11,495	88	0	20	68	0	29	
PROVINCIAL HIGHWAY			448	3	96	349	3	167	
OTHER AREAS		20,810	573	7	158	408	7	268	
MIDDLESEX		392,213	8,486	26	2,658	5,802	27	4,041	245,316
BRACEBRIDGE, T		11,856	162	0	33	129	0	44	
GRAVENHURST, T		8,870	114	0	23	91	0	53	
HUNTSVILLE, T		14,588	166	1	34	131	1	51	
LAKE OF BAYS, TP		2,533	17	0	10	7	0	16	
MUSKOKA LAKES, TP		5,430	61	1	7	53	1	14	
PROVINCIAL HIGHWAY			439	6	111	322	8	198	
OTHER AREAS		2,069	256	2	52	202	2	77	
MUSKOKA		45,346	1,215	10	270	935	12	453	39,856
FORT ERIE, T		26,717	410	4	106	300	5	164	
GRIMSBY, T		19,262	212	3	55	154	3	81	
LINCOLN, T		18,175	201	1	60	140	1	93	
NIAGARA-ON-THE-LAKE, T		12,580	215	1	62	152	1	100	
NIAGARA FALLS, C		75,498	1,457	7	328	1,122	7	500	
PELHAM, T		14,061	167	0	35	132	0	59	
PORT COLBORNE, C		18,182	189	2	47	140	2	68	
ST CATHARINES, C		127,442	2,022	7	465	1,550	7	646	
THOROLD, C		17,846	224	6	61	157	6	92	
WAINFLEET, TP		6,069	54	1	23	30	1	27	
WELLAND, C		47,617	714	2	154	558	2	238	
WEST LINCOLN, TP		11,238	143	1	42	100	1	62	
PROVINCIAL HIGHWAY			1,161	7	339	815	7	542	
OTHER AREAS		0	222	3	40	179	3	62	
NIAGARA		394,687	7,391	45	1,817	5,529	46	2,734	274,447
EAST FERRIS, TP		4,292	26	0	10	16	0	18	
MATTAWA T		2,332	10	1	0	9	1	1	
NORTH BAY C	M	54,940	614	2	161	451	2	238	
SPRINGER, TP		2,545	18	0	6	12	0	9	
STURGEON FALLS, T	M	6,161	75	0	17	58	0	20	
PROVINCIAL HIGHWAY			584	5	165	414	5	264	



Table 4.1\*

Continued

Location	Estimated Population (1998)*	Class of Collision				Persons		Motor Vehicle Registrations
		Total Collisions	Fatal	Personal Injury	Property Damage	Killed	Injured	
OTHER AREAS	10,109	134	0	30	104	0	42	
<b>NIPISSING</b>	<b>80,379</b>	<b>1,461</b>	<b>8</b>	<b>389</b>	<b>1,064</b>	<b>8</b>	<b>592</b>	<b>57,135</b>
BRIGHTON, TP	3,518	20	0	4	16	0	5	
BRIGHTON, T	4,401	29	0	6	23	0	8	
COBOURG, T	M 15,426	250	0	60	190	0	95	
COLBORNE, VL	1,876	10	0	3	7	0	5	
CRAMAHE, TP	3,239	11	0	2	9	0	5	
HALDIMAND, TP	4,195	30	1	6	23	1	13	
HOPE, TP	3,562	31	0	7	24	0	12	
PERCY, TP	3,098	28	0	6	22	0	9	
PORT HOPE, T	M 10,962	106	0	26	80	0	38	
PROVINCIAL HIGHWAY		296	2	83	211	3	151	
OTHER AREAS	19,228	468	5	117	346	6	188	
<b>NORTHUMBERLAND</b>	<b>69,505</b>	<b>1,279</b>	<b>8</b>	<b>320</b>	<b>951</b>	<b>10</b>	<b>529</b>	<b>55,118</b>
CUMBERLAND, TP	47,044	275	3	67	205	3	97	
WEST CARLETON, TP	16,286	216	2	47	167	2	80	
GLOUCESTER, C	M 104,397	1,118	3	282	833	4	408	
GOULBOURN, TP	19,902	189	0	37	152	0	57	
KANATA, C	48,014	554	0	99	455	0	160	
NEPEAN, C	M 116,928	1,407	4	341	1,062	4	510	
OSGOODE, TP	15,845	205	2	47	156	2	64	
OTTAWA, C	M 321,955	5,705	8	1,492	4,205	9	2,072	
RIDEAU, TP	12,231	145	1	38	106	1	53	
ROCKCLIFFE PARK, VL	2,191	12	1	2	9	1	3	
VANIER, C	17,771	225	0	66	159	0	81	
PROVINCIAL HIGHWAY		1,170	8	270	892	15	421	
OTHER AREAS	0	279	1	55	223	1	97	
<b>OTTAWA-CARLETON</b>	<b>722,564</b>	<b>11,500</b>	<b>33</b>	<b>2,843</b>	<b>8,624</b>	<b>42</b>	<b>4,103</b>	<b>400,175</b>
INGERSOLL, T	M 9,955	87	1	19	67	1	21	
S WEST OXFORD, TP	8,378	88	0	28	60	0	35	
TILLSONBURG, T	M 13,523	154	0	45	109	0	63	
WOODSTOCK, C	M 32,347	537	3	136	398	5	197	
ZORRA, TP	8,107	63	1	7	55	1	13	
PROVINCIAL HIGHWAY		389	0	98	291	0	178	
OTHER AREAS	25,054	503	11	129	363	13	222	
<b>OXFORD</b>	<b>97,364</b>	<b>1,821</b>	<b>16</b>	<b>462</b>	<b>1,343</b>	<b>20</b>	<b>729</b>	<b>70,885</b>

Table 4.1\*

Continued

Location		Estimated	Class of Collision				Persons		Motor Vehicle Registrations
		Population	Total		Personal	Property			
		(1998)*	Collisions	Fatal	Injury	Damage	Killed	Injured	
MCDUGALL, TP		2,177	11	0	4	7	0	7	
PERRY, TP		1,987	12	0	1	11	0	1	
PROVINCIAL HIGHWAY			607	9	166	432	11	277	
OTHER AREAS		29,101	308	3	68	237	4	99	
<b>PARRY SOUND</b>		<b>33,265</b>	<b>938</b>	<b>12</b>	<b>239</b>	<b>687</b>	<b>15</b>	<b>384</b>	<b>34,611</b>
BRAMPTON, C		260,498	3,744	13	796	2,935	13	1,264	
CALEDON, T		39,837	785	6	182	597	6	304	
MISSISSAUGA, C		529,160	6,696	13	1,259	5,424	13	1,815	
PROVINCIAL HIGHWAY			2,682	10	508	2,164	12	802	
OTHER AREAS		0	325	2	25	298	2	50	
<b>PEEL</b>		<b>829,495</b>	<b>14,232</b>	<b>44</b>	<b>2,770</b>	<b>11,418</b>	<b>46</b>	<b>4,235</b>	<b>568,238</b>
ST. MARYS, T	M	5,776	53	0	14	39	0	15	
STRATFORD, C	M	28,002	468	1	114	353	1	175	
PROVINCIAL HIGHWAY			151	2	48	101	3	96	
OTHER AREAS		36,284	502	8	144	350	10	256	
<b>PERTH</b>		<b>70,062</b>	<b>1,174</b>	<b>11</b>	<b>320</b>	<b>843</b>	<b>14</b>	<b>542</b>	<b>49,024</b>
LAKEFIELD, VL	M	2,321	17	0	6	11	0	7	
PETERBOROUGH, C	M	68,748	898	0	353	545	0	546	
PROVINCIAL HIGHWAY			301	2	88	211	2	153	
OTHER AREAS		46,918	694	3	196	495	3	296	
<b>PETERBOROUGH</b>		<b>117,987</b>	<b>1,910</b>	<b>5</b>	<b>643</b>	<b>1,262</b>	<b>5</b>	<b>1,002</b>	<b>85,122</b>
CASSELMAN, VL		2,838	26	0	1	25	0	1	
EAST HAWKESBURY, TP		3,242	14	0	5	9	0	8	
HAWKESBURY, T	M	10,266	203	0	32	171	0	37	
RUSSELL, TP		11,652	44	1	11	32	1	17	
PROVINCIAL HIGHWAY			148	0	45	103	0	75	
OTHER AREAS		45,633	587	4	153	430	4	216	
<b>PRESCOTT &amp; RUSSELL</b>		<b>73,631</b>	<b>1,022</b>	<b>5</b>	<b>247</b>	<b>770</b>	<b>5</b>	<b>354</b>	<b>60,623</b>
PROVINCIAL HIGHWAY			55	1	18	36	1	27	
OTHER AREAS		22,795	442	2	88	352	3	133	
<b>PRINCE EDWARD</b>		<b>22,795</b>	<b>497</b>	<b>3</b>	<b>106</b>	<b>388</b>	<b>4</b>	<b>160</b>	<b>18,217</b>
ATIKOKAN, TP	M	3,493	19	0	3	16	0	3	
FORT FRANCES, T	M	8,312	143	0	21	122	0	29	
PROVINCIAL HIGHWAY			184	2	47	135	2	87	
OTHER AREAS		6,392	68	1	14	53	2	18	
<b>RAINY RIVER</b>		<b>18,197</b>	<b>414</b>	<b>3</b>	<b>85</b>	<b>326</b>	<b>4</b>	<b>137</b>	<b>17,719</b>

Table 4.1\*

Continued

Location		Estimated	Class of Collision				Persons		Motor Vehicle
		Population	Total		Personal	Property			Registrations
		(1998)*	Collisions	Fatal	Injury	Damage	Killed	Injured	
ALICE & FRASER, TP		4,043	17	0	5	12	0	13	
ARNPRIOR, T		6,552	74	0	10	64	0	17	
DEEP RIVER, T	M	4,203	9	0	0	9	0	0	
HORTON, TP		2,443	14	0	3	11	0	6	
PEMBROKE, C	M	13,492	218	1	51	166	1	69	
PETAWAWA, T		15,075	39	0	11	28	0	12	
RENFREW, T	M	7,642	98	0	31	67	0	47	
WESTMEATH, TP		2,584	14	0	3	11	0	4	
WILBERFORCE, TP		1,834	11	0	4	7	0	5	
PROVINCIAL HIGHWAY			404	6	131	267	6	246	
OTHER AREAS		34,679	531	1	125	405	1	193	
RENFREW		92,547	1,429	8	374	1,047	8	612	69,356
BARRIE, C	M	78,965	1,825	1	304	1,520	1	461	
COLLINGWOOD, T	M	15,745	242	3	60	179	3	92	
ESSA, TP		15,904	69	0	11	58	0	17	
FLOS, TP		0	2	0	0	2	0	0	
NNISFIL, T	M	24,853	178	3	43	132	4	69	
MIDLAND, T	M	16,406	257	0	67	190	0	91	
ORILLIA, C	M	27,882	479	3	102	374	4	160	
TINY, TP		8,875	71	0	20	51	0	33	
WASAGA BEACH, T		9,710	138	0	32	106	0	50	
PROVINCIAL HIGHWAY			1,421	8	323	1,090	8	552	
OTHER AREAS		131,326	2,110	10	556	1,544	12	921	
SIMCOE		329,666	6,792	28	1,518	5,246	32	2,446	242,745
CORNWALL, C	M	46,651	789	0	200	589	0	296	
PROVINCIAL HIGHWAY			371	8	108	255	9	185	
OTHER AREAS		61,951	770	7	163	600	7	234	
STORMONT, DUNDAS & GLENGARRY		108,602	1,930	15	471	1,444	16	715	73,634
CAPREOL, T		3,620	18	0	2	16	0	4	
ESPANOLA, T	M	5,306	41	0	9	32	0	11	
NICKEL CENTRE, T		12,604	42	0	6	36	0	9	
ONAPING FALLS, T		5,183	12	1	2	9	1	2	
RAYSIDE-BALFOUR, T		15,224	42	1	10	31	1	21	
SUDBURY, C	M	91,056	1,607	5	440	1,162	5	659	
VALLEY EAST, T		22,959	160	1	75	84	1	135	
WALDEN, T		9,895	54	0	21	33	0	30	

Table 4.1\*

Continued

Location		Estimated	Class of Collision				Persons		Motor Vehicle
		Population	Total		Personal	Property			Registrations
		(1998)*	Collisions	Fatal	Injury	Damage	Killed	Injured	
PROVINCIAL HIGHWAY			678	8	219	451	11	368	
OTHER AREAS		11,588	344	3	83	258	3	144	
SUDBURY		177,435	2,998	19	867	2,112	22	1,383	128,059
GERALDTON, T		2,555	19	0	2	17	0	3	
LONGLAC, T		1,769	14	0	4	10	0	5	
MANITOUWADGE, TP		3,229	22	0	6	16	0	7	
MARATHON, T	M	4,648	15	0	3	12	0	7	
NIPIGON, TP		2,021	8	0	1	7	0	2	
SCHREIBER, TP		1,626	13	0	2	11	0	2	
TERRACE BAY, TP	M	2,189	9	0	2	7	0	2	
THUNDER BAY, C	M	115,419	1,426	2	512	912	2	737	
PROVINCIAL HIGHWAY			865	13	209	643	14	357	
OTHER AREAS		13,533	943	2	55	886	2	82	
THUNDER BAY		146,989	3,334	17	796	2,521	18	1,204	115,178
ENGLEHART, T		1,615	6	0	1	5	0	1	
HAILEYBURY, T		4,545	48	0	16	32	0	23	
KIRKLAND LAKE, T	M	10,098	104	0	25	79	0	30	
NEW LISKEARD, T	M	4,856	78	0	16	62	0	25	
PROVINCIAL HIGHWAY			253	1	66	186	1	98	
OTHER AREAS		11,967	123	1	36	86	1	54	
TIMISKAMING		33,081	612	2	160	450	2	231	27,022
TORONTO, C.	M	2,262,100	57,676	72	16,749	40,855	77	23,987	
PROVINCIAL HIGHWAY			8,148	8	1,967	6,173	8	2,868	
OTHER AREAS		0	246	0	54	192	0	83	
TORONTO		2,262,100	66,070	80	18,770	47,220	85	26,938	1,136,257
BOBCAYGEON, VL		2,575	15	0	4	11	0	6	
ELDON, TP		2,887	19	0	5	14	0	10	
EMILY, TP		6,362	40	0	12	28	0	18	
FENELON, TP		5,593	21	0	5	16	0	6	
FENELON FALLS, VL		1,806	19	0	4	15	0	4	
LINDSAY, T	M	16,815	289	0	82	207	0	128	
MANVERS, TP		5,283	27	0	6	21	0	7	
MARIPOSA, TP		6,929	34	0	9	25	0	13	
SOMERVILLE, TP		2,066	15	0	7	8	0	12	
VERULAM, TP		4,108	23	0	7	16	0	9	
PROVINCIAL HIGHWAY			258	1	76	181	1	134	



Table 4.1\*

Continued

Location	Estimated Population (1998)*	Class of Collision				Persons		Motor Vehicle
		Total Collisions	Fatal	Personal Injury	Property Damage	Killed	Injured	Registrations
OTHER AREAS	9,627	587	4	171	412	4	277	
VICTORIA	64,051	1,347	5	388	954	5	624	52,510
CAMBRIDGE, C	99,825	1,898	4	452	1,442	5	675	
KITCHENER, C	175,623	3,251	7	761	2,483	7	1,103	
NORTH DUMFRIES, TP	7,761	174	0	46	128	0	68	
WATERLOO, C	83,318	1,400	6	320	1,074	6	492	
WELLESLEY, TP	8,385	54	0	15	39	0	32	
WILMOT, TP	13,607	244	1	49	194	1	83	
WOOLWICH, TP	16,939	290	3	93	194	3	166	
PROVINCIAL HIGHWAY		876	4	213	659	5	347	
OTHER AREAS	0	58	0	41	17	0	54	
WATERLOO	405,458	8,245	25	1,990	6,230	27	3,020	263,447
ARTHUR, TP	2,417	12	0	5	7	0	5	
ARTHUR, VL	2,033	22	0	5	17	0	6	
ELORA, VL	3,126	18	0	5	13	0	7	
ERAMOSA, TP	5,767	48	0	8	40	0	9	
ERIN, T	9,923	61	1	13	47	1	19	
FERGUS, T	M 8,410	103	0	15	88	0	22	
WEST GARAFRAXA, TP	3,501	22	0	4	18	0	12	
GUELPH, C	M 92,130	1,217	2	487	728	2	737	
GUELPH, TP	3,140	40	0	5	35	0	6	
HARRISTON, T	M 1,809	12	0	1	11	0	1	
MARYBOROUGH, TP	2,566	20	0	9	11	0	12	
MINTO, TP	2,385	21	0	3	18	0	3	
MOUNT FOREST, T	4,192	45	0	11	34	0	12	
NICHOL, TP	3,900	29	1	4	24	1	5	
PALMERSTON, T	M 2,215	5	0	1	4	0	1	
PILKINGTON, TP	2,447	26	0	3	23	0	3	
PUSLINCH, TP	4,731	67	0	17	50	0	25	
PROVINCIAL HIGHWAY		542	2	173	367	2	279	
OTHER AREAS	7,325	676	6	169	501	8	306	
WELLINGTON	162,017	2,986	12	938	2,036	14	1,470	119,046
AURORA, T	34,411	481	0	91	390	0	136	
GEORGINA, T	32,652	355	0	91	264	0	136	
E GWILLIMBURY, T	18,518	307	0	85	222	0	148	
KING, TP	17,686	293	1	57	235	1	90	



Table 4.1\*

Continued

Location	Estimated	Class of Collision				Persons		Motor Vehicle Registrations
	Population	Total	Fatal	Personal Injury	Property Damage	Killed	Injured	
	(1998)*	Collisions						
MARKHAM, T	162,527	3,029	3	458	2,568	3	710	
NEWMARKET, T	55,079	885	2	148	735	2	219	
RICHMOND HILL, T	93,819	1,578	4	231	1,343	4	347	
VAUGHAN, C	129,019	2,739	11	488	2,240	12	731	
WHITCHURCH STOUFFVILLE, T	18,642	226	5	66	155	6	109	
PROVINCIAL HIGHWAY		1,714	7	312	1,395	9	485	
OTHER AREAS	0	448	0	29	419	0	38	
<b>YORK</b>	<b>562,353</b>	<b>12,055</b>	<b>33</b>	<b>2,056</b>	<b>9,966</b>	<b>37</b>	<b>3,149</b>	<b>426,033</b>

## Legend

<b>T</b>	town	<b>Other Areas -</b> Jurisdiction with less than 1,500 population and/or experienced amalgamations/name change after 1992	<b>M</b> Municipal Police Force
<b>C</b>	city		
<b>VL</b>	village		
<b>TP</b>	township		

## \* Sources: Ministry of Municipal Affairs and Housing and Ontario Municipal Directory 1998

Population data in this table refers to persons residing in a municipality on a permanent basis.

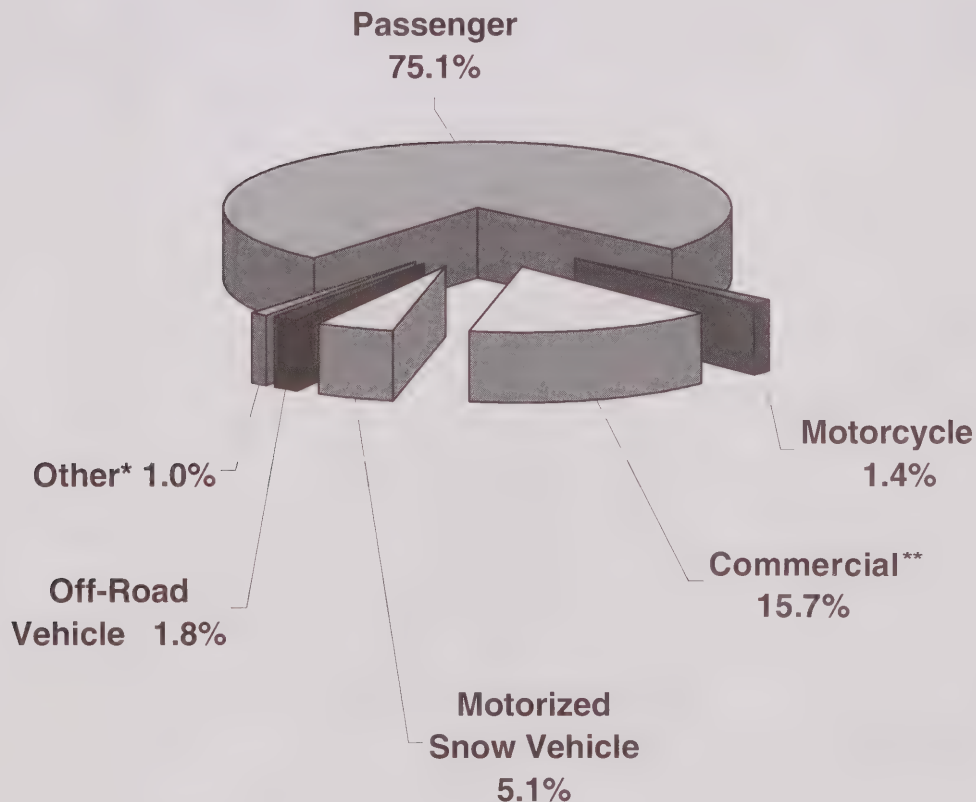
\*\* The number is adjusted to include vehicles that are not associated with a county or region in Ontario and by commercial vehicles that are simulatonsly registered in Ontario and other jurisdictions.

Municipalities that experienced amalgamation, annexation or name change after 1992 are included in "other areas".

Table 4.1 is not comparable to previous years.

## 5 The Vehicle

### Vehicle Population by Vehicle Class in Ontario - 1998



\*Other includes bus, school bus, road building machinery, permanent apparatus and farm trucks.

\*\* Commercial excludes Single Application Vehicle Registration (SAVR - 28,779 vehicles).

**5a. Vehicles in Collisions****Table 5.1 Vehicles Involved in Collisions 1998**

Type of Vehicle*	Number of Vehicles Involved in Collisions			Total
	Fatal	Personal	Property	
		Injury	Damage	
Passenger Car	750	75,304	202,793	<b>278,847</b>
Passenger Van	118	10,511	29,544	<b>40,173</b>
Motorcycle & Moped	38	1,253	498	<b>1,789</b>
Pick-up Truck	160	8,362	26,740	<b>35,262</b>
Delivery Van	21	2,101	6,879	<b>9,001</b>
Tow Truck	5	137	490	<b>632</b>
Truck	122	2,689	11,469	<b>14,280</b>
Bus	14	568	1,513	<b>2,095</b>
School Vehicle	2	198	734	<b>934</b>
Off-Road Vehicle	1	41	69	<b>111</b>
Snowmobile	1	31	51	<b>83</b>
Snow Plow	1	17	103	<b>121</b>
Emergency Vehicle	6	457	1,141	<b>1,604</b>
Farm Vehicle	3	70	126	<b>199</b>
Construction Equipment	4	47	202	<b>253</b>
Motor Home	0	20	124	<b>144</b>
Railway Train	11	19	40	<b>70</b>
Street Car	1	107	372	<b>480</b>
Bicycle	37	3,219	465	<b>3,721</b>
Other	0	0	0	<b>0</b>
Other Non-Motor Vehicle	1	33	120	<b>154</b>
Unknown	7	1,076	10,510	<b>11,593</b>
<b>Total</b>	<b>1,303</b>	<b>106,260</b>	<b>293,983</b>	<b>401,546</b>

\*Categories in this table are not comparable to previous years

**Table 5.2** Condition of Vehicle by  
Class of Collision 1998

Condition of Vehicle	Class of Collision			Total
	Fatal	Personal	Property	
		Injury	Damage	
No Apparent Defect	1,220	100,772	256,843	<b>358,835</b>
Service Brakes Defective	4	132	256	<b>392</b>
Steering Defective	2	12	22	<b>36</b>
Tire Puncture or Blow Out	0	38	112	<b>150</b>
Tire Tread Insufficient	2	36	58	<b>96</b>
Headlamps Defective	2	9	16	<b>27</b>
Other Lamps or Reflectors Defective	1	16	50	<b>67</b>
Engine Controls Defective	1	7	33	<b>41</b>
Wheels or Suspension Defective	0	13	67	<b>80</b>
Vision Obscured	1	12	35	<b>48</b>
Trailer Hitch Defective	0	5	9	<b>14</b>
Other Defects	17	684	5,416	<b>6,117</b>
Unknown	53	4,524	31,066	<b>35,643</b>
<b>Total</b>	<b>1,303</b>	<b>106,260</b>	<b>293,983</b>	<b>401,546</b>

**Table 5.3** Model Year of Vehicle by Class of  
Collision 1998

Model Year of Vehicle	Class of Collision			Total
	Fatal	Personal	Property	
		Injury	Damage	
1999	8	424	1,679	<b>2,111</b>
1998	88	6,714	21,254	<b>28,056</b>
1997	97	7,699	22,558	<b>30,354</b>
1996	75	5,701	17,005	<b>22,781</b>
1995	81	7,255	20,871	<b>28,207</b>
1994	63	6,394	18,443	<b>24,900</b>
1993	78	6,660	18,711	<b>25,449</b>
1992	88	7,292	19,596	<b>26,976</b>
1991	74	6,881	18,594	<b>25,549</b>
1990	91	7,696	20,412	<b>28,199</b>
1989 and earlier	493	37,554	95,319	<b>133,366</b>
Unknown	67	5,990	19,541	<b>25,598</b>
<b>Total</b>	<b>1,303</b>	<b>106,260</b>	<b>293,983</b>	<b>401,546</b>

**Table 5.4 Insurance Status of Vehicle by Class of Collision 1998**

	Insurance	Class of Collision			Total
		Personal		Property	
		Fatal	Injury	Damage	
Insured		1,182	98,449	265,302	364,933
Not Insured		49	2,045	1,982	4,076
Unknown		72	5,766	26,699	32,537
<b>Total</b>		<b>1,303</b>	<b>106,260</b>	<b>293,983</b>	<b>401,546</b>



## 5b. Putting the Vehicle in Context

**Table 5.5**      **Vehicle Population by  
Type of Vehicle 1998**

Vehicle Class	
Passenger	5,369,972
Motorcycle	98,156
Moped	3,013
Commercial*	1,120,377
Bus	18,912
School Bus	8,562
Motorized Snow Vehicle	363,737
Off-Road Vehicle	125,498
Road Building Machinery	657
Permanent Apparatus	3,297
Farm Trucks	35,547
<b>Total</b>	<b>7,147,728</b>

\* Excludes Single Application Vehicle Registrations (SAVR - 28,779 vehicles)

**Table 5.6**      **Selected Types of Vehicles by Model Year 1998**

Vehicle Class	Model Years											Total
	99	98	97	96	95	94	93	92	91	90	89+	
Passenger	113,667	448,849	395,599	300,283	366,158	342,348	359,136	385,315	365,271	378,110	1,915,236	<b>5,369,972</b>
Motorcycle	657	4,741	4,062	3,429	2,622	2,521	2,742	2,248	2,060	2,251	70,823	<b>98,156</b>
Moped	4	10	8	9	3	13	8	5	8	17	2,928	<b>3,013</b>
Commercial*	23,429	96,235	78,230	55,705	72,284	66,916	54,130	55,288	55,767	74,578	527,316	<b>1,159,878</b>
Bus	327	2,021	1,644	2,002	1,942	1,348	1,595	1,994	2,124	2,454	10,023	<b>27,474</b>
Motorized Snow Vehicle	8,438	16,907	16,707	15,034	14,306	14,389	11,915	9,398	12,946	14,044	229,653	<b>363,737</b>
Off-Road Vehicle	2,559	6,124	4,627	5,394	5,284	4,337	5,214	4,922	4,920	5,733	76,384	<b>125,498</b>
<b>Total</b>	<b>149,081</b>	<b>574,887</b>	<b>500,877</b>	<b>381,856</b>	<b>462,599</b>	<b>431,872</b>	<b>434,740</b>	<b>459,170</b>	<b>443,096</b>	<b>477,187</b>	<b>2,832,363</b>	<b>7,147,728</b>

\* Excludes Single Application Vehicle Registrations (SAVR - 28,779 vehicles).

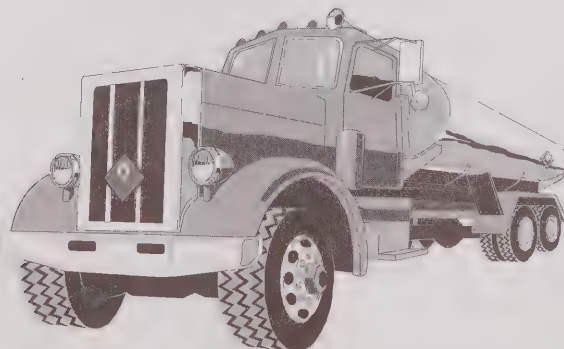
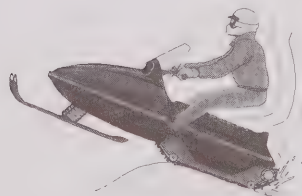
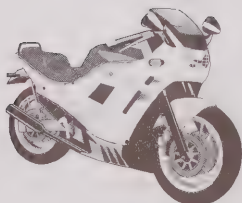
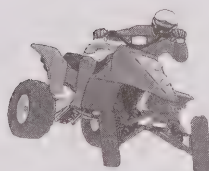
**Table 5.7 Vehicle Damage Level 1998**

Damage	Class of Collision			Total
		Personal	Property	
	Fatal	Injury	Damage	
None	57	10,241	17,728	<b>28,026</b>
Light	145	31,272	119,449	<b>150,866</b>
Moderate	115	27,642	92,368	<b>120,125</b>
Severe	205	21,826	27,131	<b>49,162</b>
Demolished	738	10,585	5,193	<b>16,516</b>
Other	43	4,694	32,114	<b>36,851</b>
<b>Total</b>	<b>1,303</b>	<b>106,260</b>	<b>293,983</b>	<b>401,546</b>

**Vehicle Damage**

<b>None</b>	No visible damage.
<b>Light</b>	Slight or superficial damage. Includes scratches, small dents, minor cracks in glass that do not affect safety or performance of vehicle.
<b>Moderate</b>	Unsafe conditions result from damage. Vehicle must be repaired to make its condition meet requirements of law. Vehicle can be driven off road or limited distance but doing so would be unsafe.
<b>Severe</b>	Vehicle cannot be driven. Requires towing. Would normally be repaired.
<b>Demolished</b>	Vehicle damaged to the extent that repairs would not be feasible.

## 6 Vehicles of Special Interest



**6a. Motorcycles**

**Table 6.1 Motorcyclists\***  
**Killed and Injured**  
**1994-1998**

Year	Drivers		Passengers	
	Killed	Injured	Killed	Injured
1994	50	1,526	4	324
1995	37	1,309	4	289
1996	27	1,006	2	244
1997	36	993	2	255
1998	32	1,068	3	263

\* Excludes moped drivers and passengers.

**Table 6.2 Selected Factors**  
**Relevant to Fatal Motorcycle**  
**Collisions 1998**

<b>Factors</b> (not mutually exclusive)	<b>%</b>
Unlicensed Motorcycle Drivers	5
Under 25 years Old	19
Alcohol Used	
Ability Impaired Alcohol > .08	19
Had Been Drinking	5
Unknown	14
Helmet Not Worn (Fatalities)	14
Motorcycle Driver Error	
Speed Too Fast/Lost Control	54
Other Error	14
Single Vehicle Collisions	46
Day/Night	51/49
Weekend	31

**6b. School Vehicles****Table 6.3 Pupils Transported Daily, Total Collisions and Injury Rate per 100,000 Pupils -  
School Years 1993/94-1997/98**

	School Year	Pupils	Total	Injury Rate per 100,000 Pupils	
		Transported	Number of		
		Daily	Collisions	Fatal	Non-Fatal
	1993/94	798,926	1,293	0.4	27
	1994/95	816,273	1,018	0.1	21
	1995/96	Not Available	1,091	Not Available	Not Available
	1996/97	Not Available	1,046	Not Available	Not Available
	1997/98	877,000*	835	Not Available	Not Available

\* Estimated number

**Table 6.4 School Vehicle Type by Nature of Collision 1997/98**

School Vehicle Type	Nature of Collision				Total	Five Year Total
		Pupil	Non-Pupil	Property	Number of	(1993/94 -
	Fatal	Injury	Injury	Damage	Collisions	1997/98)
School Bus	4	44	83	583	714	4,590
School Van	0	8	13	47	68	508
Other School Vehicles	1	1	9	42	53	185
<b>Total</b>	<b>5</b>	<b>53</b>	<b>105</b>	<b>672</b>	<b>835</b>	<b>5,283</b>

**Table 6.5 Pupil Injury by Collision Event and Vehicle Type 1997/98** (Number of Persons)

School Vehicle Type	Collision Event						Total		Five Year Total	
	Crossing		Within		Other				(1993/94 -	
	Road		School Vehicle						1997/98)	
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
School Bus	0	2	0	96	0	3	0	101	6	698
School Van	0	0	0	6	0	0	0	6	0	47
Other School Vehicles	0	0	0	1	0	0	0	1	0	11
<b>Total</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>103</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>108</b>	<b>6</b>	<b>756</b>



**6c. Trucks****Table 6.6** Number of Trucks Involved  
in Collisions 1994-1998

Year	Class of Collision			Total
	Fatal	Personal Injury	Property Damage	
1994	326	13,335	43,906	57,567
1995	365	12,647	40,487	53,499
1996	320	12,377	39,595	52,292
1997	342	12,062	38,519	50,923
1998	278	11,292	33,967	45,537
<b>Total</b>	<b>1,631</b>	<b>61,713</b>	<b>196,474</b>	<b>259,818</b>

**Table 6.7** Driver Licence Class Required  
by Class of Truck Collision  
- Number of Trucks\*\* 1998

Driver Licence Required	Class of Collision			Total
	Fatal	Personal Injury	Property Damage	
G	169	9,482	27,531	37,182
D	20	548	1,973	2,541
A*	89	1,262	4,463	5,814
<b>Total</b>	<b>278</b>	<b>11,292</b>	<b>33,967</b>	<b>45,537</b>

\* Tractor/trailer combination only.

\*\* Includes vehicles registered under the SAVR - 28779 vehicles

Data for truck/trailer combinations requiring Class "A" driver licence are not reported separately in the Vehicle Registration System.

**Table 6.8** Driver Licence Class Required -  
Trucks, Registered Trucks and  
Collision Rate 1998

Driver Licence Required	Trucks in Collisions	Registered Trucks	Truck Involvement*
G	37,182	1,010,124	3.7
D	2,541	49,315	5.2
A**	5,814	129,218 ***	4.5
<b>Total</b>	<b>45,537</b>	<b>1,188,657</b>	<b>3.8</b>

\* Number of trucks in collisions per 100 registered trucks.

\*\* Tractor/trailer combination only.

\*\*\* Includes vehicles registered under the SAVR system  
(28779 vehicles).

Data for truck/trailer combinations requiring Class "A" driver licence are not reported separately in the Vehicle Registration System.

**Table 6.9** Selected Factors Relevant to Fatal  
Truck Collisions 1998

Factors in Fatal Collisions:	Driver Licence Required		
	Class G	Class D	Class A
<b>Drivers</b>			
Alcohol Involved	16.0%	0.0%	1.1%
Driving Properly	43.2%	75.0%	69.7%
<b>Collisions</b>			
Single Vehicle	34.3%	20.0%	15.7%
Urban Area	42.0%	55.0%	16.9%
Daylight	57.4%	80.0%	55.1%
<b>Vehicles</b>			
Vehicle Defect Present*	3.6%	10.0%	0.0%

\* Excludes unknown category

Class G trucks refers to trucks that have a gross weight less than 11,000 kilograms i.e. pickups.

Data for truck/trailer combinations requiring Class "A" driver licence are not reported in the Vehicle Registration System (VRS).

**6d. Off-Road Vehicles**

For the purposes of this publication, off-road vehicles include dune buggies, off-road motorcycles (dirt bikes), and three and four wheeled all-terrain vehicles. Off-road vehicles were first required to be registered on June 1, 1984 (one-time registration requirement).

**Table 6.10** Collision Location  
by Off-Road Vehicle Drivers  
Killed and Injured 1994-1998

Location	Killed					Injured				
	1994	1995	1996	1997	1998	1994	1995	1996	1997	1998
On-Highway	3	0	0	1	1	22	23	20	19	24
Off-Highway	3	6	5	3	2	63	74	46	41	49
<b>Total</b>	<b>6</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>85</b>	<b>97</b>	<b>66</b>	<b>60</b>	<b>73</b>

**Table 6.11** Collision Location  
by Off-Road Vehicle Passengers  
Killed and Injured 1994-1998

Location	Killed					Injured				
	1994	1995	1996	1997	1998	1994	1995	1996	1997	1998
On-Highway	0	0	0	0	0	6	5	6	15	10
Off-Highway	0	0	0	1	0	23	23	9	19	23
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>29</b>	<b>28</b>	<b>15</b>	<b>34</b>	<b>33</b>

**Table 6.12** Registered Off-Road  
Vehicles 1994-1998

Year	Vehicles Registered
1994	101,954
1995	106,677
1996	111,344
1997	117,438
1998	125,498

**Table 6.13** Selected Factors Relevant to  
All Off-Road Vehicle  
Collisions 1998

Factors	%
Drivers Under 25 Years of Age	61
Alcohol Used	19
Speeding	14
Helmet Not Worn	50
Daytime	73
Two-Wheeled	14
Three-Wheeled	12
Four-Wheeled	74

**6e. Motorized Snow Vehicles****Table 6.14 Collision Location by Motorized Snow Vehicle\* Drivers Killed and Injured -  
Riding Seasons 1993/94-1997/98**

Location	Killed					Injured				
	93/94	94/95	95/96	96/97	97/98	93/94	94/95	95/96	96/97	97/98
On-Highway	2	6	3	2	2	62	36	73	72	22
Off-Highway	9	22	25	19	31	237	243	304	259	199
<b>Total</b>	<b>11</b>	<b>28</b>	<b>28</b>	<b>21</b>	<b>33</b>	<b>299</b>	<b>279</b>	<b>377</b>	<b>331</b>	<b>221</b>
% On-Highway	18	21	11	10	6	21	13	19	22	10

**Table 6.15 Collision Location by Motorized Snow Vehicle\* Passengers Killed and Injured -  
Riding Seasons 1993/94-1997/98**

Location	Killed					Injured				
	93/94	94/95	95/96	96/97	97/98	93/94	94/95	95/96	96/97	97/98
On-Highway	1	0	0	3	0	25	17	33	20	14
Off-Highway	3	2	2	2	2	63	62	103	61	69
<b>Total</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>5</b>	<b>2</b>	<b>88</b>	<b>79</b>	<b>136</b>	<b>81</b>	<b>83</b>

**Table 6.16 Registered Motorized  
Snow Vehicles 1994-1998**

Year	Registered Motorized Snow Vehicles
1994	391,847
1995	339,803
1996	361,596
1997	362,561
1998	363,737

**Table 6.17 All Motorized Snow Vehicle  
Collisions 1997/98**

Factors	%
Unlicensed Operators	10
Rider Error; Speed too Fast	33
Alcohol Used	24
Surface Condition; Icy or Packed Snow	48

\* The numbers in these tables are captured under the Motorized Snow Vehicle Act (MVSA) and the Highway Traffic Act (HTA) therefore they are not comparable with the numbers in Tables 2.2 and 2.3 which are HTA reportable collisions only.

## 6f. Bicycles

Only collisions involving a bicycle and a moving motor vehicle or a streetcar are required to be reported. These tables do not include bicycle only bicycle/bicycle or bicycle/pedestrian collisions.

**Table 6.18 Bicyclists**

**Killed and Injured**

**1994-1998**

Year	Drivers		Passengers	
	Killed	Injured	Killed	Injured
1994	27	3,283	0	107
1995	19	2,983	0	105
1996	20	2,863	0	109
1997	22	2,997	1	101
1998	36	2,994	0	136

**Table 6.20 Selected Factors**

**Relevant to**

**All Bicycle Collisions 1998**

Factors	%
Driving Properly (Bicyclist)	37
Driving Properly (Motor Vehicle Driver)	49
Intersection Related	65
Going Ahead (Bicyclist)	81
Alcohol Related (Bicyclist)	3
No Apparent Vehicle Defect (Bicycle)	87
Clear Visibility	93
Weekend	19

**Table 6.19 Age of Bicyclists Involved in Collisions by**

**Light Condition 1998**

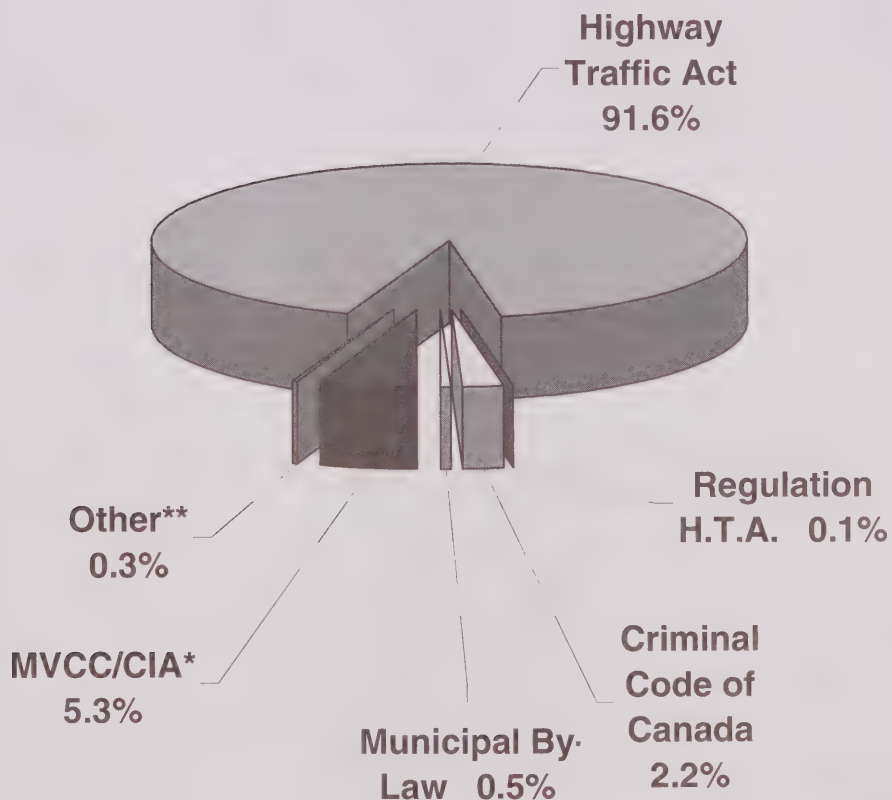
Light	Age Groups						
Condition	0 - 5	6 - 15	16 - 30	31 - 60	61+	UK	Total
Daylight	272	914	888	739	137	77	3,027
Dawn	2	4	11	8	0	0	25
Dusk	16	54	48	22	0	4	144
Dark	43	82	219	151	16	13	524
<b>Total</b>	<b>333</b>	<b>1,054</b>	<b>1,166</b>	<b>920</b>	<b>153</b>	<b>94</b>	<b>3,720</b>





## 7 Conviction, Offence and Suspension Data

### Per Cent of Motor Vehicle Convictions in Ontario - 1998



\* Motor Vehicle Collision Claim / Compulsory Insurance Act

\*\* Other includes Motorized Snow Vehicles Act and Off-Road Vehicles Act

**7a. Conviction Data****Table 7.1**      **Summary of Motor Vehicle  
Related Convictions 1998**

<b>Convictions*</b>	<b>Number</b>
Highway Traffic Act	927,460
Regulations under the H.T.A	924
Criminal Code of Canada**	22,730
Municipal By-Law	5,167
Motor Vehicle Collision Claim/Compulsory Insurance Act**	53,826
Motorized Snow Vehicles Act	1,550
Off-Road Vehicles Act	926
Other	153
<b>Total</b>	<b>1,012,736</b>

\* Includes manually recorded convictions.

\*\* This figure does not include 350 convictions for young offenders under the Criminal Code.

**Table 7.2**      **Motor Vehicle Convictions  
Related to the  
Highway Traffic Act 1998**

<b>Convictions</b>	<b>Number</b>
Equipment	17,338
Administrative*	111,440
Seat Belt (Driver & Passenger)**	52,238
Other Non-Pointable Convictions ***	11,042
Speeding	573,199
Other Pointable Convictions (2 - 4 pts)	121,556
Other Pointable Convictions (5 - 7 pts)	7,933
Driving While Suspended	12,315
<b>Total</b>	<b>907,061</b>

\* Non-moving, weight, vehicle registration, licence renewal, etc..

\*\* Failure to wear seat belt convictions registered against passengers over 16 are no longer included.

\*\*\* Now includes some out-of-province convictions.

**Table 7.3**      **Motor Vehicle Convictions  
Related to the  
Criminal Code 1998\***

<b>Convictions</b>	<b>Number</b>
Alcohol Related**	18,681
Criminal Negligence	24
Fail to Remain at Collision	550
Driving While Disqualified	2,353
Dangerous Driving	1,121
Motor Manslaughter	1
<b>Total</b>	<b>22,730</b>

\* Does not include 350 convictions for young offenders.

\*\* Includes some out-of-province convictions.

## 7b. Offence Data

**Table 7.4** Number of Convicted Drivers\* with Criminal Code of Canada Offenses, During the Specified Years

Conviction Type	1993	1994	1995	1996	1997
Criminal Negligence	47	40	39	26	14
Fail to Remain	817	789	721	649	524
Dangerous Driving	1,138	1,204	1,182	1,069	925
Impaired Driving	13,907	13,415	12,608	12,087	9,805
Blood/Alcohol over 80 mg%	9,159	9,026	8,975	8,789	7,486
Fail to Provide Breath Sample	1,524	1,551	1,545	1,494	1,236
Driving While Disqualified	2,846	2,675	2,440	2,602	2,221
<b>Total</b>	<b>29,438</b>	<b>28,700</b>	<b>27,510</b>	<b>26,716</b>	<b>22,211</b>

\* The same driver can be represented in this table more than once.

As of March 31, 1999, there were 16,459 Criminal Code offences recorded for 1998. The 1998 breakdown will be updated in the 1999 annual report to accommodate the lag time in the recording of offences (offences are only recorded upon conviction).

**Table 7.5** Administrative Driver License Suspension  
Monthly Suspensions Issued 1998\*

Suspensions	1996	1997	1998
January	-	1,310	1,337
February	-	1,595	1,471
March	-	1,898	1,608
April	-	1,810	1,681
May	-	2,068	1,801
June	-	1,978	1,665
July	-	1,887	1,665
August	-	1,450	1,750
September	-	1,679	1,609
October	-	1,747	1,663
November	-	1,769	1,617
December	2,013	1,820	1,810
<b>Total</b>	<b>2,013</b>	<b>21,011</b>	<b>19,677</b>

The Administrative Driver's Licence Suspension (ADLS) started in Ontario on November 29, 1996. The first complete month of suspensions shown in this table is, therefore, December, 1996.

From August 5th to 15th, 1997, ADLS suspensions were not issued due to cessation in ADLS.

Re-issuing of suspensions resumed on August 15, 1997.

See Appendix for details on the ADLS.

\* Administrative Driver License Suspension (ADLS) began on November 29, 1996.

See Appendix for more explanation of ADLS.

Data for Table 7.4 presents the number of offenses recorded as of December 31, 1997. Table 7.4 has been revised to report the number of drivers that committed a specific Criminal Code Offence (CCC) in the specified year. This table is not comparable to Table 7.4 from earlier annual reports.

**7c. Suspension Data****Table 7.6 Demerit Point Suspensions by Driver Age 1998**

Driver Age	Demerit Point Suspensions				
	Probationary	Novice		Regular	
		First	Second	First	Second
		Accumulation	Accumulation	Accumulation	Accumulation
16	0	1	0	0	0
17	0	18	0	0	0
18	0	221	3	1	0
19	0	477	23	12	0
20-24	116	1,058	88	327	24
25-34	91	348	29	468	50
35-44	30	124	12	197	18
45-54	3	31	4	71	10
55-64	0	8	0	15	0
65-74	0	4	0	7	0
75 +	0	0	0	1	0
<b>Total</b>	<b>240</b>	<b>2,290</b>	<b>159</b>	<b>1,099</b>	<b>102</b>

Since 1994 novice drivers have been under the new graduated licensing system. These drivers are subject to escalating actions from a warning letter at 2 to 5 points, an interview at 6 to 8 points and a 60 day suspension for a first accumulation of 9 points. After a first suspension, the points are reduced to 4 and if they attain 9 points again the subsequent suspension is 6 months.

Regular drivers are suspended for 30 days on the first accumulation of 15 demerit points and are suspended for 6 months on the second accumulation of 15 points within 2 years.

Until 1994 newly licensed drivers were covered by the probationary licence system until they had successfully completed two one-year periods of suspension-free driving. Probationary drivers were suspended for 30 days after accumulating 6 or more demerit points. The probationary licensing system ended on March 31, 1994. Drivers were grandfathered into the system by the new graduated licensing system.

## 8 Appendix

### 8a. Glossary

#### **Ability Impaired Alcohol:**

Driving while one's ability is impaired by alcohol or driving with a blood alcohol concentration exceeding 80 milligrams in 100 milliliters of blood.

#### **Administrative Driver Licence Suspension (ADLS):**

This program, designed to reduce drinking and driving, started November 29, 1996. Under this program, provincial law permits the immediate suspension of a driver's licence for 90 days upon evidence gathered by a police officer that the driver (a) was shown to have a concentration of alcohol in excess of 80 milligrams per 100 millilitres of blood or (b) the driver failed or refused to provide a breath or blood sample.

#### **Alcohol Involved:**

This category includes both drivers reported as ability impaired by alcohol and drivers reported as "had been drinking".

#### **Class G1 Driver's Licence:**

A holder of a Class G1 driver's licence:

- must have a zero blood alcohol content while driving.
- must have only one passenger in the front seat. That person, the accompanying driver, must be a fully licensed driver (Class A, B, C, D, E, F and G) with at least four years driving experience. That person's blood alcohol content must be less than .05.
- unless accompanied by a licensed driving instructor, must not drive on Ontario's "400-series" highways or on high speed expressways such as the Queen Elizabeth Way, the Don Valley Parkway, E.C. Row Expressway and the Conestoga Parkway.
- must limit the number of back seat passengers they carry to the number of seat belts in the back seats of the vehicle.
- must not drive between the hours of midnight and 5 a.m.
- may drive Class G vehicle only.

Level One lasts 12 months, but that time can be reduced to eight months by completing an approved driver education course. For information about approved courses contact any Ministry of Transportation licensing office. At the end of this level, drivers must pass a road test before proceeding to Level Two.

#### **Class G2 Driver's Licence:**

A holder of a Class G2 driver's licence:

- must have a zero blood alcohol content while driving.
- is allowed to drive any motor vehicle that requires a Class G driver's licence (e.g. an automobile) on the road.
- must limit the number of back seat passengers they carry to the number of seat belts in the back seats of the vehicle.

Level Two lasts 12 months. After completing this level, drivers will be eligible to take a comprehensive test to qualify for full licence privileges.

#### **Class M1 Motorcycle Driver's Licence:**

A holder of a Class M1 motorcycle driver's licence:

- allows the holder to operate a motorcycle for the purposes of training.
- must have a zero blood alcohol content while driving.
- is only allowed to drive during daylight hours (one-half hour before sunrise to one-half hour after sunset).
- is only allowed to drive on roads with speed limits of 80 km/h or less, except where there is no other route you can drive. You may drive on highways 11, 17, 61, 69, 71, 101, 102, 144, and 655.
- may not carry passengers.

Level One lasts at least 60 days, and the licence is valid for 90 days. Level One drivers must pass a motorcycle road test before proceeding to Level Two. Alternatively, during Level One they may take an approved motorcycle safety course that includes a road test, instead of the ministry road test.



**Class M2 Motorcycle Driver's Licence:**

A holder of a Class M2 motorcycle driver's licence:

- must have a zero blood alcohol content while driving.

After completing Level Two, drivers will be eligible to take a comprehensive test to qualify for full licence privileges.

**Conviction:**

Awarded when a person pleads guilty to, or is found guilty of, an offence related to a motor vehicle under any Act of the Ontario Legislature or its accompanying regulations, under the Parliament of Canada or any accompanying order, or under any municipal bylaw.

**Driver:**

Unless specified otherwise, any person, whether licensed or not, considered to be in care and control of a vehicle at the time of an collision.

**Had Been Drinking:**

Driving after having drunk an amount of alcohol not considered sufficient to be legally impaired or with a measured blood alcohol count of greater than zero but less than 80 milligrams. Blood alcohol concentration between .05 and .08 results in a 12 hour suspension.

**Highway:**

A common and public highway, street, avenue etc., any part of which is intended for public use or used by the general public for the passage of vehicles and including the area between the property lines.

**Kilometres Travelled:**

Vehicle fleet mileage is estimated on the basis of taxed gasoline and motor fuel sales. Total litres sold are converted to kilometres traveled based on a conversion factor of 22.0 kilometres per gallon.

**Major Injury:**

A non-fatal injury severe enough to require that the injured person be admitted to hospital, even if for observation only.

**Minimal Injury:**

A non-fatal injury, including minor abrasions and bruises, which does not necessitate the injured person going to a hospital.

**Minor Injury:**

A non-fatal injury requiring medical treatment at a hospital emergency room, but not requiring hospitalization of the involved person.

**Motor Vehicle Collision:**

Any incident in which bodily injury or damage to property is sustained as a result of the movement of a motor vehicle, or of its load while a motor vehicle is in motion.

**Off-Highway Collisions:**

An off-highway collision involving any of the motorized vehicles which are covered by legislation under the Highway Traffic Act, the Motorized Snow Vehicles Act, and the Off-Road Vehicles Act.

**On-Highway Collisions:**

A motor vehicle collision which occurs on the highway between the property lines.

**Pedestrian:**

Any person not riding in or on a vehicle involved in a motor vehicle collision.

**Fatal Collision:**

A motor vehicle collision in which at least one person sustains bodily injuries resulting in death. Prior to January 1, 1982, fatal collision statistics included deaths attributed to accidental injuries up to one year after the collision. Since that date, only deaths from injuries within thirty days of the collision have been included.

**Personal Injury Collision:**

A motor vehicle collision in which at least one person involved sustains bodily injuries not resulting in death.

**Property Damage Collision:**

A motor vehicle collision in which no person sustains bodily injury, but in which there is damage to any public property or damage to private property\* including damage to the motor vehicle or its load.

**Reportable Collision:**

Any injury collision, or property damage to private property in excess of a monetary value prescribed by regulation.\*

**Self-Reporting of a Collision:**

Self-reporting of a Collision. Under a new section of the Highway Traffic Act [§199 (1.1)], when one is in a collision in which there is only property damage (no injury or death, and, among other conditions, no criminal activities such as impaired driving) the involved person(s) may report the collision immediately by proceeding with one's vehicle to a Collision Reporting Centre. Self-Reporting of a collision was introduced on January 1, 1997.

**Suspension:**

Withdrawal of a drivers' privilege to operate motor vehicle for a prescribed period of time.

\* The minimum reportable level for property damage only collision rose from \$200 to \$400 on January 1, 1978 and rose again to \$700 on January 1, 1985. As of January 1, 1998, the minimum reportable level for property damage only collision is \$ 1,000.

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## 8b. Acknowledgements

The Ministry of Transportation would like to acknowledge the following Ministries for their assistance:

**Office of the Chief Coroner**

The Ministry of the Solicitor General

**Revenue Control Unit**

Motor Fuels and Tobacco Tax Branch

Ministry of Finance

**Knowledge Management Unit**

Information Planning and Evaluation Branch

Ministry of Health and Long Term Care

**Information Planning & Court Statistics**

Program Development Branch

Ministry of the Attorney General

Ministry of Education

Ministry of Municipal Affairs and Housing



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